

NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

**THE VISIBLE HAND: THE GOVERNMENT-INDUSTRIAL
RELATIONSHIP AND ITS EFFECTS ON
TRANSATLANTIC ARMS COOPERATION**

by

Jeffrey R. McNichols

June 2000

Thesis Advisor:
Second Reader:

Tjarck G. Roessler
Robert E. Looney

Approved for public release; distribution is unlimited

DTIC QUALITY INSPECTED 4

20000807 052

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE June 2000	3. REPORT TYPE AND DATES COVERED Master's Thesis	
TITLE AND SUBTITLE : The Visible Hand: The Government-Industrial Relationship and Its Effects on Transatlantic Arms Cooperation			5. FUNDING NUMBERS	
6. AUTHOR(S) Jeffrey R. McNichols				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			12b. DISTRIBUTION CODE	
ABSTRACT (maximum 200 words) <p>The economic realities of declining defense budgets and a smaller global arms market have, in recent years, forced governments to look beyond their own national borders when purchasing new armaments. This new global approach by governments in both the United States and Western Europe has resulted in an unprecedented consolidation of defense industries on both sides of the Atlantic. The key to understanding these events and what the future will hold is found in an examination of the government-industrial relationship, national corporate governance systems, the direction of the consolidation process in Western Europe, obstacles to future consolidation, and the prospects for transatlantic cooperation.</p> <p>An analysis of corporate profit data from British, French, and German defense companies was completed to study the effects of government involvement in industry and ownership concentration. While no direct connection between corporate performance and these issues is possible, both government involvement and ownership concentration are shown to play a significant role in determining the national composition of mergers and investments. Cross-border mergers of defense firms are currently obstructed, however, by a state focus on employment issues, foreign investment restrictions, industrial security regulations, and arms export controls. An understanding of these issues and the will to enact reforms is necessary for the future of transatlantic cooperation.</p>				
14. SUBJECT TERMS Defense industry, globalization, consolidation, privatization, corporate governance, transatlantic cooperation			15. NUMBER OF PAGES 157	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution is unlimited

**THE VISIBLE HAND: THE GOVERNMENT-INDUSTRIAL RELATIONSHIP
AND ITS EFFECTS ON TRANSATLANTIC ARMS COOPERATION**

Jeffrey R. McNichols
Ensign, United States Navy
B.S., United States Naval Academy, 1999

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

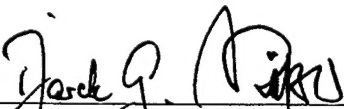
from the

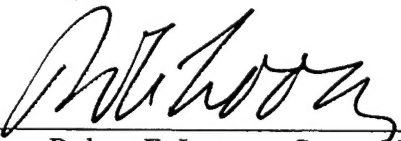
**NAVAL POSTGRADUATE SCHOOL
June 2000**

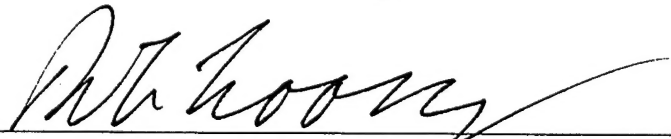
Author:


Jeffrey R. McNichols

Approved by:


Jarck G. Roessler, Thesis Advisor


Robert E. Looney, Second Reader


Robert E. Looney for Frank C. Petho, Chairman
Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

The economic realities of declining defense budgets and a smaller global arms market have, in recent years, forced governments to look beyond their own national borders when purchasing new armaments. This new global approach by governments in both the United States and Western Europe has resulted in an unprecedented consolidation of defense industries on both sides of the Atlantic. The key to understanding these events and what the future will hold is found in an examination of the government-industrial relationship, national corporate governance systems, the direction of the consolidation process in Western Europe, obstacles to future consolidation, and the prospects for transatlantic cooperation.

An analysis of corporate profit data from British, French, and German defense companies was completed to study the effects of government involvement in industry and ownership concentration. While no direct connection between corporate performance and these issues is possible, both government involvement and ownership concentration are shown to play a significant role in determining the national composition of mergers and investments. Cross-border mergers of defense firms are currently obstructed, however, by a state focus on employment issues, foreign investment restrictions, industrial security regulations, and arms export controls. An understanding of these issues and the will to enact reforms is necessary for the future of transatlantic cooperation.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	INTRODUCTION.....	1
B.	ADAM SMITH AND THE VISIBLE HAND OF GOVERNMENT INTERVENTION	6
C.	THE END OF DEFENSE MERCANTILISM	10
 II.	 STRENGTHENING THE EUROPEAN INDUSTRIAL BASE.....	 17
A.	WESTERN EUROPEAN ARMS COOPERATION EFFORTS.....	19
1.	North Atlantic Treaty Organization (NATO)	20
2.	Western European Union (WEU).....	22
3.	Organisation de Coopération Conjoint en matière d'Armement (OCCAR)	26
B.	GOVERNMENTAL INFLUENCE ON THE INDUSTRIAL CLIMATE	30
1.	Privatization Efforts in the Defense Industry	30
a.	<i>Inherent Agency Conflicts in SOEs</i>	31
b.	<i>History of Nationalization</i>	34
c.	<i>Move Towards Privatization</i>	35
2.	Corporate Governance Differences.....	42
a.	<i>Anglo-American Corporate Governance</i>	46
b.	<i>German Corporate Governance</i>	51
c.	<i>French Corporate Governance</i>	53
d.	<i>Convergence</i>	55
3.	Corporate Performance.....	56
a.	<i>Operating Profit/Income</i>	58
b.	<i>Profit Margin</i>	61
C.	RECENT CONSOLIDATION EFFORTS.....	66
1.	Systems Integrators/Aerospace and Restructuring	68
2.	Land Systems and Domestic Markets	76
3.	Defense Electronics and Competition	77

D.	OBSTACLES TO INDUSTRIAL RESTRUCTURING	79
1.	Focus on Employment.....	79
2.	Article 296	82
III.	PROSPECTS FOR TRANSATLANTIC COOPERATION	87
A.	GLOBALIZATION OF THE DEFENSE INDUSTRY	87
B.	AMERICAN OBSTACLES TO COOPERATION	90
1.	Foreign Investment in the U.S. Defense Market	93
2.	Industrial Security	97
3.	Arms Export Restrictions.....	102
4.	Legislative Obstacles	106
C.	FORTRESS EUROPE VERSUS FORTRESS AMERICA.....	110
IV.	CONCLUSIONS	119
A.	CORPORATE GOVERNANCE AND THE GOVERNMENT- INDUSTRIAL RELATIONSHIP	120
B.	CHANGING THE INDUSTRIAL COMPONENT	121
C.	GOVERNMENT ADAPTATION	122
D.	TRANSATLANTIC COOPERATION.....	123
	BIBLIOGRAPHY	125
	INITIAL DISTRIBUTION LIST	137

LIST OF FIGURES

Figure 1: WEAG Organization	23
Figure 2: Transactions by British Defense/Aerospace Companies	50
Figure 3: Operational Profit/Income (Aerospace Total)	64
Figure 4: Operating Profit/Income (Defense Electronics Total)	64
Figure 5: Profit Margin (Aerospace Total)	65
Figure 6: Profit Margin (Defense Electronics Total)	65
Figure 7: EADS Shareholder Structure	75

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

<u>Table 1: The Structure of Shareholding in Selected Nations (% of total)</u>	45
<u>Table 2: Aggregate Share-Ownership of Listed Companies in the UK</u>	48
<u>Table 3: Aggregate Share-Ownership of German Listed Companies (%)</u>	52
<u>Table 4: Aggregate Share-Ownership of Listed Companies in France (%)</u>	55
<u>Table 5: British Aerospace (BAe)</u>	59
<u>Table 6: Aerospatiale</u>	59
<u>Table 7: Daimler-Benz Aerospace (Dasa)</u>	59
<u>Table 8: GEC-Marconi</u>	60
<u>Table 9: Thomson CSF</u>	60
<u>Table 10: British Aerospace (BAe)</u>	62
<u>Table 11: Aerospatiale</u>	62
<u>Table 12: Daimler-Benz Aerospace</u>	62
<u>Table 13: GEC-Marconi</u>	63
<u>Table 14: Thomson CSF</u>	63
<u>Table 15: US/UK Defense Trade</u>	112

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

The author would like to extend his thanks to Colonel Tjarck Roessler for his scholastic and financial assistance in the completion of this thesis project. His detailed knowledge of European political and military affairs was invaluable. In addition, the author would like to thank all those who provided insight into both American and European defense-industrial affairs and gave this project increased credibility.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

A. INTRODUCTION

Following the Gulf War in 1990-1991, the issue of allied capabilities became a topic of major concern with respect to combined actions. Lacking night avionics, French *Jaguar* attack aircraft were unable to fly at night or in bad weather during Operation Desert Storm and thus could not operate with U.S. and other European aircraft.¹ In their book, *Mind the Gap*, David Gompert, Richard Kugler, and Martin Libicki predicted that given a wartime scenario similar to that of Desert Storm, "the European allies would be able to contribute no more and no better forces than they did seven years ago" and that "U.S. military commanders would sooner marginalize than integrate them, lest they get under foot."²

With regard to NATO's air operation in spring 1999 over Kosovo, the authors' view was largely vindicated. American forces utilized innovative weapons that temporarily knocked out power to much of Yugoslavia, while some European pilots had to broadcast valuable information openly for lack of advanced encrypted radio technology that U.S. aircraft use. A European aerospace and military specialist at the McKinsey management consultancy noted that "the Kosovo conflict was a real wake-up call because it proved that the fragmentation of the European industry was giving even

¹ U.S. Congress, Office of Technology Assessment, *Lessons in Restructuring Defense Industry: The French Experience—Background Paper*, OTA-BP-ISC-96 (Washington, D.C.: U.S. Government Printing Office, June 1992), 6.

² David Gompert, Richard Kugler, and Martin Libicki, *Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs* (Washington, D.C.: National Defense University Press, 1999), 5.

less capability than the spending would suggest.”³ Given such a capability gap between the United States and its NATO allies and the movement toward European defense integration, the question of closing the transatlantic gap while encouraging such integration arises. This thesis will examine the changing relationship between national governments and defense industries and the implications for U.S.-European cooperation in arms procurement given the restructuring of the Western European defense industry.

An examination of such a dynamic and broad topic requires the identification of specific focal points. To gain a perspective on the changing government-industrial relationship in Western Europe and the prospects for transatlantic cooperation, it is important to answer a number of significant questions:

- (1) How does corporate governance define the government-industrial relationship and how have differing corporate governance systems affected European arms industry restructuring efforts?
- (2) How is the industrial component of the relationship changing?
- (3) Has government properly adapted in light of globalization and industry restructuring?
- (4) What impact will the strengthening of Western European industry have on transatlantic cooperation?

With such questions in mind, the first step in examining defense industry restructuring is to study the forces at work in strengthening the Western European industrial pillar. A significant factor affecting the restructuring process is corporate

³ Alan Cowell, “Rivals’ Deal Raises Questions on Fate of British Aerospace,” *New York Times*, 19 October 1999.

governance. Defined as “the issues which arise from the separation of ownership and control in modern joint stock companies” by the Organisation for Economic Co-Operation and Development (OECD), corporate governance varies from nation to nation.⁴ This variance, even in nations with similar political governance (e.g., representative democracy), has made attempts to alter the industry and the government-industrial relationship more complex. Despite such complexity, the consolidation process among Western European prime contractors has moved forward.

Faced with the prospect of facing U.S. giants such as Boeing, Lockheed Martin, and Raytheon, several primes negotiated dramatic equity investments. Analysis of the Western European arms industry has become particularly interesting following the announcement of a major cross-border merger between the German firm DaimlerChrysler Aerospace and the French Aerospatiale Matra on 14 October 1999 with the subsequent inclusion of the Spanish aerospace company Construcciones Aeronauticas S.A. (CASA) on 2 December 1999. The French-German-Spanish deal follows the January 1999 merger in the United Kingdom of British Aerospace and General Electric’s Marconi division that similarly inspired speculation on the future of Western European defense industry restructuring. With details still being worked out in the most recent merger agreement, the future of industry restructuring is far from certain.

In the debate that has ensued on both sides of the Atlantic concerning the future of the Western European defense industrial base, the words “consolidation” and “restructuring” are often used synonymously. For Western European allies to bridge the

⁴ *OECD Economic Surveys: United Kingdom 1997-1998*, (Paris: Organisation for Economic Co-Operation and Development, 1998), 128.

“Interoperability Gap” while also strengthening their own capacity to produce armaments, however, the industry must undergo real restructuring and not merely consolidation. Many throughout Europe believe that simply building larger conglomerates that match U.S. primes in scale will lift European companies up to the level of their American competitors. The preference of pan-European cooperation/consolidation over transatlantic cooperation, however, “overestimates the importance of scale and underestimates the value of access to American defense systems know-how and information technology.”⁵ Western European consolidation efforts have effectively regionalized the defense industry. Pan-European consolidation, however, should be merely the prelude to a restructuring process involving greater transatlantic cooperation. In short, the recent consolidation efforts have prepared Western European industry for globalization.

Globalization remains a fairly vague and to some, frightening, term. The Defense Science Board Task Force on Globalization and Security defines globalization as “the integration of the political, economic and cultural activities of geographically and/or nationally separated peoples.”⁶ While protesters from all points along the political spectrum may argue that globalization is a dark force that creates injustice, within the defense industry, it is generally accepted that corporate integration in the form of joint ventures or mergers will bring access to larger markets—a distinctly positive development. Globalization of an industry that has for so long been closely guarded by

⁵ Gompert, et al., 73.

⁶ United States, Department of Defense, Defense Science Board, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, *Final Report of the Defense Science Board Task Force on Globalization and Security*, 1999.

national governments, has proven to be a daunting task. The Cold War decades have revealed a number of intra-European security and economic concerns that have continued, long after the end of the Cold War, to function as obstacles to industrial restructuring. In conjunction with corporate governance differences, labor issues in various nations and a continued attachment to Article 296 of the Treaty of Rome⁷ by European Union members have hampered past consolidation attempts and will probably continue to do so. As European firms have discovered during intra-European deals, obstacles to transatlantic cooperation exist on both continents. An examination of both American and European obstacles is necessary to fully comprehend the implications for a future relationship.

As the futures of NATO and European integration are debated, the importance of defense-industrial restructuring in Western Europe and cooperation with the United States will be revealed. While political decisions that affect the transatlantic security relationship will be made in Washington, London, Paris, and Berlin, business decisions that will likewise have security implications are currently being made in Seattle, Bethesda, Paris, Munich, and Farnborough. Only by examining the complex relationship of government and the defense industry and how it must change will proper restructuring result. The timing and content of defense-industrial restructuring in Western Europe requires a thorough examination because of the implications of this restructuring for the continuation of a strong U.S.-European relationship.

⁷ The Treaties of Rome (1957) are the founding documents for the European Economic Community (EEC) which has developed into the European Union (EU). Article 296 (formerly 223) allows governments to utilize protective measures to ensure their national "production of or trade in arms, munitions, and war

B. ADAM SMITH AND THE VISIBLE HAND OF GOVERNMENT INTERVENTION

The year 1776 proved revolutionary in many respects. As military conflict erupted in the New World with American colonists rising up against the British Crown, the Scottish economist, Adam Smith, launched the first major literary salvo against the economic system that had come to dominate British political and trade policy with its colonies and rivals. In his groundbreaking work, *An Inquiry into the Nature and Causes of the Wealth of Nations*, the father of political economics condemned the mercantilist system that many felt had allowed Britain to surpass its continental rivals. Despite a past history of supporting free trade, mercantilism with its strong encouragement of exports and outright discrimination against imports, had led the British into a commercial and territorial rivalry with other European nations. Believing the balance of trade to be a zero-sum game, mercantilists of Smith's age concluded that the exchange of precious metals for foreign goods resulted in a loss of wealth for the nation. Fighting this desire to accumulate monetary wealth, Smith noted, "it is not for its own sake that men desire money, but for the sake of what they can purchase with it."⁸

While Adam Smith disagreed with the mercantilist system's preoccupation with money, he found greater fault with the result of that preoccupation—domestic monopolies. With the exception of raw materials from British colonies, British merchants sought to restrict foreign imports and rely upon domestic production. The natural extension of such domestic reliance is the establishment of monopolies. Smith

material." James B. Steinberg, *The Transformation of the European Defense Industry*, (Santa Monica, CA: RAND Corporation, 1992), 54.

found fault with the promotion of domestic monopolies on both the micro and macro levels. In Book Four of *The Wealth of Nations*, ("Of Systems of Political Economy") Smith declared,

Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident that it would be absurd to attempt to prove it. But in the mercantile system the interest of the consumer is almost constantly sacrificed to that of the producer; and it seems to consider production, and not consumption, as the ultimate end and object of all industry and commerce.

In the restraints upon the importation of all foreign commodities which can come into competition with those of our own growth or manufacture, the interest of the home consumer is evidently sacrificed to that of the producer. It is altogether for the benefit of the latter that the former is obliged to pay that enhancement of price which this monopoly almost always occasions.⁹

Sir Alexander Cairncross, Chancellor of the University of Glasgow and Master of St. Peter's College at Oxford, noted that Adam Smith "developed the argument . . . that free access to the international market, whether as exporter or importer, was calculated to improve the efficiency of an economy and encourage its growth."¹⁰

While the phrase "market economy" had not yet entered the lexicon of eighteenth century Britain¹¹, Smith's belief in the balance of the consumption/production relationship was predicated on the absence of a regulatory authority that caused disruption. The mercantilist systems of Britain and other nations were supported by

⁸ Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. Mortimer J. Adler (Chicago: Encyclopædia Britannica, Inc., 1993), 209.

⁹ Smith, 322.

¹⁰ Alexander Cairncross, "The Market and the State," in *The Market and the State: Essays in Honour of Adam Smith*, eds. Thomas Wilson and Andrew S. Skinner (Oxford: Oxford University Press 1976), 127.

regulations proposed and enforced by the state. The proper balance of state intervention in the national economy has been a topic of great discussion ever since, with the command economy and *laissez-faire* liberalism acting as end supports of a governance spectrum. While not a blind advocate of *laissez-faire* policies, Smith recognized that it was executive and legislative acts such as the Corn Laws¹² that had established the system of domestic monopolies and thus state power over the economy. Indeed, Smith inferred that mercantilist policies were designed “to not increase the power of the nation but the power of government.”¹³ With such strident opinions on both sides of the government-industrial relationship, Sir Alexander correctly surmised that the one true question that arises is “the division of labour between the state and the market. For what purposes should market forces be allowed free rein and for what purposes should the state try to regulate or short-circuit them?”¹⁴

This fundamental question of government control and influence versus that of the marketplace is reflected in the current government-industrial relationship. Today, national governments in Western Europe and the United States generally believe that the “invisible hand” will lead the selfish decisions of their modern industries to also promote the common good of society. Unlike other industrial concerns, however, the arms industry in both the United States and Western Europe has instead been driven in a much more direct fashion by the *visible* hand of government. In nearly all nations, this direct

¹¹ Cairncross, 113.

¹² The Corn Laws were a series of laws dating back to the 15th century that restricted the importing of wheat and other grain (collectively called “corn”).

¹³ S. Herbert Frankel, *Adam Smith's “Invisible Hand” in a Velvet Glove*, The G. Warren Nutter Lectures in Political Economy, (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1980), 8.

¹⁴ Cairncross, 115.

action has taken the form of protected markets. In some cases, the outright ownership of defense manufacturers has ensured the good of society. The end result has been the establishment of “national champions,” or what Smith would call domestic monopolies. Such national champions represent the fear of Adam Smith and other free traders that the aim of mercantilists was and remains to enlarge “the isolating power of the nation-state, not at promoting the economic freedom of the individual across national boundaries . . .

”¹⁵

The influence of national governments in the defense industry is currently maintained by exerting control on both sides of the government-industrial relationship—demand and supply. Within the confines of a monopsonistic/oligopsonistic market, the defense industry remains almost entirely dependent upon the procurement policies (demand) of national governments. On the supply-side, industry remains largely in control of its own affairs; however, the nature and importance of its production results in greater government control over the industry. A myriad of regulations govern all aspects of arms production—from export and industrial security concerns to strict rules governing mergers and acquisitions. The business atmosphere created by government within a nation, known as corporate governance, further complicates the supply-side of the relationship

Though Adam Smith is often held up as the great proponent of free trade, one must be cautious when using his writings to denigrate strong government control of the defense trade. In declaring defense “of much more importance than opulence,” Smith made clear his support for the Act of Navigation, a protectionist decree that restricted the

¹⁵ Frankel, 9.

shipping of British goods to British ships—effectively creating a domestic shipping monopoly.¹⁶ After examining this support in its context, however, it can be argued that Smith would not as wholeheartedly support the current government-industrial relationship that has produced protected arms markets throughout the world. While Britain may have no eternal allies and no eternal enemies¹⁷, as Lord Palmerston was to declare to the House of Commons in 1848, the relationships in Western Europe and North America remain close. As Smith noted in his explanation of the Act of Navigation, at the time of its implementation, Britain viewed Holland with great animosity. During Smith's lifetime, France was likewise a continual threat to the well being of the nation. As was demonstrated throughout the Cold War and now in its aftermath, however, Britain's eternal and perpetual interests are shared by the NATO allies and no direct threat that warrants protectionist measures currently exists for any of the alliance's members. Furthermore, it can be argued that through close cooperation with NATO allies, member states will gain greater military capabilities than by pursuing strictly national programs.

C. THE END OF DEFENSE MERCANTILISM

While the merits of free trade have largely been accepted in developed nations, the desire to limit imports and encourage exports remains a powerful force today in even the most advanced economies. In his article, "The New Mercantilism," RAND economist, Charles Wolf, quoted John Maynard Keynes—"Practical men, who believe

¹⁶ Smith, 222.

¹⁷ "It is a narrow policy to suppose that this country or that is to be marked out as the eternal ally or the perpetual enemy . . . We have no eternal allies, and we have no eternal enemies. Our interests are eternal and perpetual, and those interests it is our duty to follow." Lord Palmerston, 1848.

themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist.”¹⁸ As Wolf goes on to explain, however, the defunct mercantilist theories of Jean Baptiste Colbert, Friedrich List, and Alexander Hamilton have been slightly altered and are now advocated by a new generation of economists in the United States and other developed nations. Given the title “neo-mercantilism” by its detractors, the economic system of eighteenth century Europe has been reborn through proposed trade initiatives such as industrial and strategic trade policies.¹⁹

Mercantilism was effectively disestablished by the abolition of the British Corn Laws in May 1846, but it can be argued that it has maintained its sway over defense industries to the present day. While no longer accumulating vast deposits of gold and silver, nations continue to invoke the sacred argument of national security in order to justify protective measures that encourage arms exports while restricting arms imports. In his 1990 article in the journal *International Security*, Professor Theodore Moran of Georgetown University explored the reasoning of states in their opposition to what was then perceived as a significant national security threat—globalization.²⁰ While acknowledging the national security implications of foreign defense production, expressed in the belief that “liberal agnosticism toward the nationality of companies and

¹⁸ Charles Wolf, Jr., “The New Mercantilism,” *The Public Interest*, no. 16 (Summer 1994): 96.

¹⁹ Wolf defines “industrial policy” as the development of key industries and technologies, with international trade playing a secondary role while “strategic trade policy” focuses on international trade by promoting specific imports and limiting specific imports.

²⁰ Theodore H. Moran, “The Globalization of America’s Defense Industries,” *International Security* 15, no. 1 (Summer 1990): 58.

the location of crucial research and production activities poses unacceptable risks,” Professor Moran went on to demonstrate weaknesses in the neo-mercantilist thought.²¹

The argument that “replacing reliance on foreign companies with reliance on national companies relieves the threat from globalization,”²² can be countered, as Moran noted, by the fact that even with its own suppliers, a nation cannot guarantee against external vulnerabilities (for example, a domestic firm manufacturing high-tech equipment can be crippled through the use of foreign microchips or other components).²³ Even wholly or partially state-owned firms are not spared from external supply problems or influence. During the 1973 OPEC-induced oil shortage, British Petroleum, in which the British government had a 48 percent stake, refused a governmental request to increase oil deliveries to Britain. “BP announced that it would place contractual obligations above instructions from stockholders.”²⁴ Admittedly, the monopsonistic/oligopsonistic nature of the defense industry gives national governments more influence over firms, but the inherent vulnerabilities in domestic producers remain unless the state engages in complete defense-industrial autarky.

From a national security standpoint, “autarkic self-reliance in certain key sectors offers the ultimate protection.”²⁵ Reliance on foreign suppliers and its associated problems are completely eliminated, but a new set of security compromises present themselves. While autarky prevents foreign influence over defense production and

²¹ Moran, 60.

²² Moran, 62.

²³ Moran, 64.

²⁴ Moran, 63.

²⁵ Moran, 66.

ensures that advanced technology remains in-country, such a policy also eliminates the possibility of technology advances through collaboration and a cheaper, more efficient production process through increased economies of scale and learning. Autarky, on the other hand, leads to higher costs, fewer units, delayed deployment, and inferior technological performance.²⁶ Virtually every major arms-producing nation has experienced the problems associated with autarky. In a bid to develop domestic military (with applications to the civilian sector) aircraft production capabilities, the Japanese government and private firms wasted valuable resources on the FSX fighter project. The British effort to develop a domestic alternative (Nimrod AEW) to the American AWACS platform ended in failure with a cost of \$1.6 billion and nine years of effort. More importantly, by pinning their national security aspirations on the Nimrod program and its long series of delays and cost overruns, the British found themselves “without sophisticated surveillance or fighter control against Argentine air strikes” during the 1982 Falklands War.²⁷

To national security policymakers in both Europe and the United States, reliance on foreign sources for defense articles was an anathema to be avoided even with efficiency and monetary costs. Economists, however, look to the basic concept of comparative advantage²⁸ to justify out-sourcing of certain defense products to foreign firms and for cooperative efforts on major defense projects. The evolutionary movement of globalization, however, has tilted the debate in the direction of economists. Whether

²⁶ Moran, 69.

²⁷ Moran, 68.

it's the producers of athletic shoes or soft drinks, multinational corporations have long accepted the concept of globalization within their industries. For arms manufacturers and their national clients, however, industry-wide globalization has been approached hesitantly with the still valid concerns about national security. Not wanting to rely on foreign sources for vital defense equipment, national governments throughout the world directly supported or encouraged the development of "national champions" in all sectors of arms manufacturing despite the vulnerabilities previously discussed. Likewise, the concept of defense autarky drove the defense-industrial policies of nations during the Cold War though such an actual policy would be impossible and both politically and economically undesirable.

In the aftermath of the Soviet collapse, many of the neo-mercantilist policies, championed by many national security policymakers and pursued by the United States and its European allies, have slowly given way to an acceptance of defense industry globalization. The United States was the first major arms producing nation to recognize that globalization, with careful management, could lead to great benefits for the industry and the Department of Defense. Whether through collaboration on projects such as the Medium Extended Air Defense System (MEADS) and cooperative endeavors²⁹ like the Joint Strike Fighter (JSF) or international mergers such the purchase of the American

²⁸ The theory of comparative advantage states that if one nation that produces many goods can produce a product more efficiently or cheaper than another similar nation, it is in the less efficient nation's best interest to import that product.

²⁹ The 1996 Center for Strategic and International Studies (CSIS) report, "Making Transatlantic Defense Cooperation Work" makes an important distinction between "collaboration" and "cooperation." Collaboration refers to "joint efforts by U.S. and European governments to evaluate, research, develop, and produce a defense system based upon a set of common requirements," while cooperation is "the generic term to cover all other forms of cooperative activities . . ." including defense trade, licensed reproduction, co-production, and cooperative research and development.

defense electronics firm, Tracor, by GEC-Marconi in 1998, globalization will allow defense firms in both Western Europe and the United States to spread the increasing cost of research and development and achieve greater economies of scale.

While limited cooperative efforts between American and Western European defense firms have produced successful systems, globalization could not be foreseen in an industry that still harbored national champions in nearly all of the armament sectors. With diminishing defense budgets on both sides of the Atlantic, a restructuring of the industries on both continents that would reduce the number of firms had to occur. International demand for arms dropped from \$1.2 trillion in 1985 to \$868 billion in 1993 (1993 prices) and in Europe alone, major weapons procurement fell by 28.5 percent in real terms from 1985 to 1994.³⁰ Given such budgetary constraints and a major sales upturn unlikely in the near future, the issue of consolidation was thrust upon the major weapons producers in Western Europe and the United States. Restructuring first occurred in the United States as American defense firms were forced to consolidate in order to compete for the decreasing number of government contracts. As Under Secretary of Defense Jacques Gansler noted in remarks to the Aviation Weekly Aerospace Finance Conference, "dramatic consolidation was the inevitable result of a dwindling defense procurement budget—which saw a 70 percent decrease following the end of the Cold War"³¹

³⁰ Katia G. Vlachos, "Safeguarding European Competitiveness: Strategies for the Future European Arms Production and Procurement," Western European Union Institute Occasional Paper 4, January 1998, Online, Available HTTP: <http://www.weu.int/institute/occasion/4vlachos.htm> (23 November 1999).

³¹ Jacques S. Gansler, "The Defense Industry Base In The 21st Century," Aviation Weekly Aerospace Finance Conference, New York, 14 April 1999, Online, Available HTTP: <http://www.acq.osd.mil/ousda/speech/aviationweekly.htm> (25 October 1999).

The budget constraints of the Western European nations likewise acted as the impetus to consolidation. Economic benefits had soon supplanted many of the defense industrial base bulwarks built during the Cold War. Western Europe's epiphany came several years after the same experience in the United States. While this has allowed Europe's arms manufacturers to learn from the mistakes of their American competitors, it has also handicapped both industry and government. America's already strong defense industry was strengthened through consolidation and restructuring efforts and has established a market share commensurate with its size and power. According to figures from the U.S. State Department's Bureau of Arms Control, American defense companies accounted for nearly 40 percent of the world's arms exports in 1990. By 1997, the percentage had risen to 58 percent.³² Lockheed Martin's 1997 arms sales of \$18.5 billion alone "exceed[ed] the 1997 national defence budgets of all but ten countries in the world."³³ Western European governments and militaries have also suffered as a result of their companies' delay. The weak showing by European air forces in the Kosovo campaign highlighted the growing transatlantic disparity. The pace of change has picked up decidedly in Europe as British, French, German, Spanish, and Italian companies embrace consolidation. By taking the next critical step and successfully restructuring their firms, defense executives and national governments can effectively strengthen the Western European industrial pillar and compete with the U.S. titans in the global market.

³² "Table IV: Value of Arms Transfer Deliveries and Agreements, 1987-1997 By Major Supplier and Recipient Region," *World Military Expenditures and Arms Transfers 1998*, Bureau of Arms Control, U.S. Department of State, Available HTTP:

http://www.state.gov/www/global/arms/bureau_ac/wmeat98/w98tbl4.pdf (7 May 2000).

³³ "Arms Production: Recent Trends in Arms Production," Stockholm International Peace Research Institute, Online, Available HTTP: <http://projects.sipri.se/milex/aprod/trends.html> (30 November 1999).

II. STRENGTHENING THE EUROPEAN INDUSTRIAL BASE

When discussing the structure of the European Union, scholars often mention the three pillars of the EU: Economic, Security, and Domestic legal policies. Individual European nations have long established their domestic legal policies and the European Economic Community (EEC) laid the economic foundations of the modern-day union. The security pillar, however, has not yet evolved independent of and outside the NATO coalition to which not all European Union member nations belong. With the slow formulation of the European Security and Defense Identity (ESDI) and recent attempts to define a Common Foreign and Security Policy (CFSP), the future of an independent European defense capability has become an item of discussion and contention. A vital element of any European security structure is a robust defense-industrial base. Achievement of this goal, however, will require the collaboration of both economic poles: supply and demand. Those supplying European militaries with modern weapons systems must work to consolidate, restructure, maximize profit, and cooperate with other firms. The national governments that demand sophisticated products must privatize state-owned enterprises, create the necessary corporate environment, and streamline the weapons procurement process. Only a transformation in the government-industrial relationship will allow Europe to strengthen its defense industrial base.

The first great step towards the goal of a strengthened European industrial base began on 6 July 1998. On that date, the heads of state of Germany, France, the United Kingdom, Sweden, Spain, and Italy signed a Letter of Intent (LoI) that outlined a plan to restructure Europe's defense-industrial base. With the goal of removing government

obstacles to the defense trade while still maintaining an active role as regulator and customer, the LoI nations addressed specific aims and established an agenda for their adoption. The framework document addressed the issues of:

1. Security of Supply

- Supply management
- Free transfer between the six LoI nations
- To guarantee strategic assets and their distribution
- Monitoring of foreign control
- Reconstitution of key supply facilities

2. Export Procedures

- Administrative simplifications
- Global Project Licences

3. Security of Classified Information

- To insure a high level of protection to classified information in European Transnational Defense Companies (ETDC)
- Whenever necessary, to harmonize and soften national rules in order to facilitate the fluidity of information

4. Defense Related Research and Technology

- To avoid unnecessary duplication of efforts through coordination of R&T programs and funds

5. Treatment of Technical Information

- To harmonize national laws, regulations and procedures for controlling disclosure and use of technical information in the field of defense
- To facilitate the transfer of any relevant technical information to ETDC

6. Harmonization of Military Requirements

- To define common interest capacities
- To harmonize the military requirements of the armed forces
- To identify projects at early stage for cooperation research, development, and procurement

- To harmonize procedures for program procurement³⁴

A. WESTERN EUROPEAN ARMS COOPERATION EFFORTS

Since its founding in 1949, the North Atlantic Treaty Organization has played a vital role in maintaining the transatlantic relationship on security matters. One important aspect of any defense system is arms cooperation. The NATO members quickly recognized that standardization and interoperability were needed if the alliance was to be effective. While it is private defense companies that actually produce weapons systems, national governments provide many of the specifications and much of the research and development funding. Actual procurement of defense goods has likewise been the purview of government officials. For European nations faced with the daunting task of funding and purchasing expensive weapons systems, cooperative efforts appear to offer some respite.

To examine the issue of arms cooperation in Europe, it is first necessary to understand the types of cooperative agencies that currently operate on the continent. Three types of agencies have developed in recent years. They include the Research and Development Agency, the Managing Agency, and the Procurement Agency. Research and Development agencies such as the U.S. Defense Advanced Research Projects Agency (DARPA) and NATO's Research and Technology Organisation (RTO) were established to "systematically explore advanced concepts, identify and validate technology and provide a forum for users and industry in studies and development

³⁴ "Letter of Intent—LoI," Briefing Slides, Directorate for Cooperation and Industrial Affairs, Délégation Générale pour l'Armement, February 2000.

efforts.”³⁵ Managing agencies, however, are much more limited in scope. A Managing Agency such as the Organisation de Coopération Conjoint en matière d’Armement (OCCAR) is tasked with directing the production of a weapons system for several different nations. In the past, procurement of weapons systems has always been viewed as a sovereignty issue that fell under the direction of the U.S. Department of Defense or individual ministries of defense in Europe. Recently, however, the Western European Union’s Western European Armaments Organization (WEAO) and OCCAR have branched out into this once national domain. By examining the three most important cooperative agencies, a better understanding of Western Europe’s collaborative efforts and potential will be gained.

1. North Atlantic Treaty Organization (NATO)

In NATO, the vital task of arms cooperation has fallen under the auspices of the Conference of National Armaments Directors (CNAD). Reporting directly to the North Atlantic Council (NAC), the CNAD is composed of “senior officials with responsibility for defence acquisition in member nations, representatives from the Military Committee and Major NATO Commands”³⁶ The CNAD “promotes NATO armaments cooperation and considers political, economic and technical aspects of the development and procurement of equipment for NATO forces.”³⁷ The Conference of National Armaments Directors is composed of several permanent and ad hoc groups. Permanent

³⁵ Marc Rogers, “Euro DARPA Needed to Bridge Technology Gap,” *Jane’s Defence Weekly*, 3 June 1998, 8, Online, Available HTTP: <http://fore.thomson.com/janes/> (1 April 1999).

³⁶ “Conference of National Armaments Directors (CNAD),” *NATO Handbook*, Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v219.htm> (28 October 1999).

³⁷ “20. Conference of National Armaments Directors (CNAD),” *NATO Handbook*, Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v029.htm> (28 October 1999).

groups include the Main Armaments Groups—NATO Naval Armaments Group (NNAG), NATO Air Force Armaments Group (NAFAG), and NATO Army Armaments Group (NAAG), the NATO Industrial Advisory Group (NIAG), and the NATO Conventional Armaments Review Committee (NCARC).³⁸

Unlike the Warsaw Treaty Organization, NATO has never been able to dictate arms cooperation in order to avoid duplication and enforce interoperability. Instead, it has relied on the CNAD to act as a forum encouraging cooperation for the benefit of the organization. Even with the collapse of the Soviet Union and inclusion of former Warsaw Pact adversaries, NATO continues to place an emphasis on arms cooperation. In 1993, the North Atlantic Council approved a number of revised policies and procedures in ensure continued arms cooperation. The Council stipulated that the CNAD should concentrate on:

- Harmonisation of military requirements on an Alliance-wide basis;
- Promotion of essential battlefield interoperability;
- Pursuit of cooperative opportunities identified by the CNAD and the promotion of improved transatlantic cooperation;
- The development of critical defence technologies, including expanded technology sharing.³⁹

While the conference dealt with the larger picture of arms cooperation for the alliance, NATO has also been involved in the missions of research and development. In 1952, NATO founded the Advisory Group for Aerospace Research and Development

³⁸ "Conference of National Armaments Directors (CNAD)."

(AGARD) to concentrate research in the growing aerospace field. The broader-based Defence Research Group (DRG) soon joined AGARD following the 1957 launch of *Sputnik* by the Soviet Union.⁴⁰ In 1996, NATO strengthened its research and development capabilities by integrating AGARD and the DRG into the Research and Technology Organisation (RTO) with the stated mission:

To conduct and promote cooperative research and information exchange, to support the development and effective use of the national defence research and technology to meet the military needs of the Alliance, to maintain a technological lead and to provide advice to NATO and national decision makers.⁴¹

While NATO remains the primary organization for maintaining the defense of Europe, European security organizations have also broadened their interests to include arms cooperation.

2. Western European Union (WEU)

In 1998, Tommy Ivarsson, senior vice president and head of Saab's Corporate Strategic Planning, noted that Europe "runs national, unco-ordinated technology programmes and few advanced studies."⁴² In recent years, however, the Western European Union has made an attempt to establish organizations to fill the R&D and procurement roles for Europe—the WEAG and WEAO. The research and development-oriented Western European Armaments Group (WEAG), traces its roots back to the 1976 attempt by the defense ministers of the European NATO nations to establish the

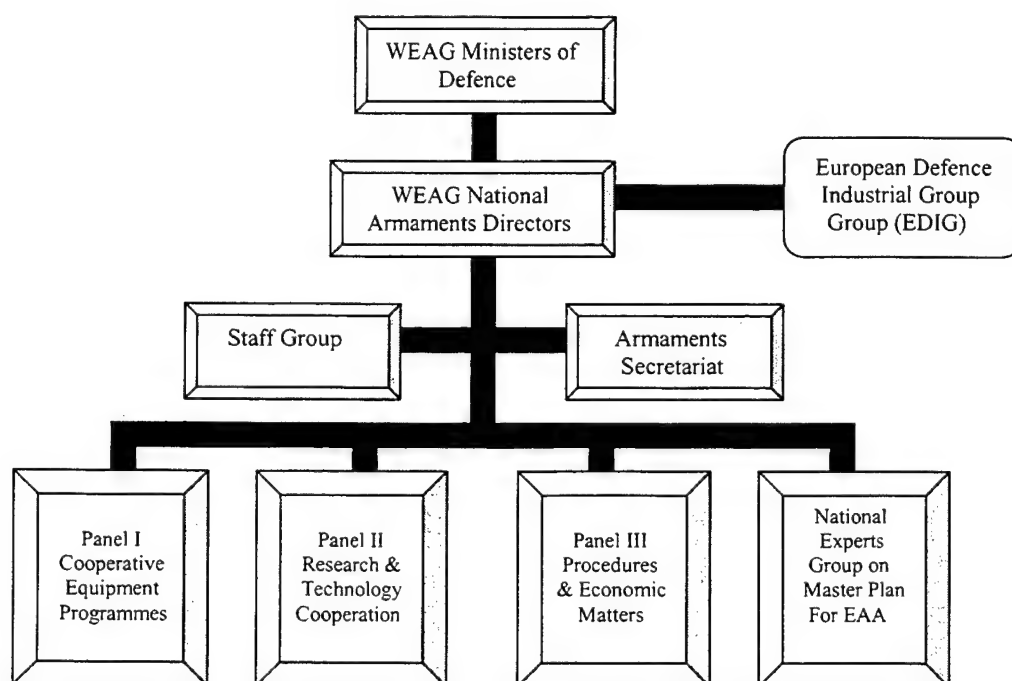
³⁹ "Armaments Cooperation," *NATO Handbook*, Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v127.htm> (28 October 1999).

⁴⁰ "NATO's New Research and Technology Organization," Online, Available HTTP: <http://www.nato.int/docu/review/articles/9701-5.htm> (1 November 1998).

Independent European Programme Group (IEPG) as a forum for armaments cooperation. The IEPG's functions were transferred to the newly invigorated WEU in December 1992 and into the newly formed WEAG.⁴³

The Armaments Group coordinated research and development through three panels responsible for different stages of a program. The WEAG flow chart below shows the organization framework and the resultant chain of command (Figure 1).

Figure 1: WEAG Organization
Source: Western European Union



⁴¹ "Research and Technology Organisation (RTO)," *NATO Handbook*, Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v245.htm> (28 October 1999).

⁴² Rogers, 8.

Panel I Equipment Programmes: Panel I examines the WEAG nations' armaments replacement schedules and conducts feasibility studies in order to produce a plan leading to development and production of arms between collaborating nations. Panel I also compares results with NATO's CNAD to avoid duplication of cooperative efforts within NATO and the WEAG.⁴⁴

Panel II Research and Technology: Panel II operates the European Cooperation for the Long term in Defence (EUCLID), a government-led R&T program that allows WEAG members to collaborate in developing technology.⁴⁵

Panel III Procedures and Economic Matters: Panel III deals with aspects of common defense economics policy and armaments cooperation such as cross-border competition and technology transfer. It often uses the *juste retour*⁴⁶ mechanism for determining national levels of participation.⁴⁷

While research and development remain important stages in arms cooperation, cooperative efforts in the final step of procurement would provide the greatest economic

⁴³ "Western European Armaments Group (WEAG)," Western European Union Website, Online, Available HTTP: <http://www.w eu.int/weag/eng/info/weag.htm> (28 October 1999).

⁴⁴ "Western European Armaments Group – Panel I: Research and Technology," Western European Union Website, Online, Available HTTP: <http://www.w eu.int/weag/eng/info/panel2.htm> (28 October 1999).

⁴⁵ "Western European Armaments Group – Panel II: Equipment Programmes," Western European Union Website, Online, Available HTTP: <http://www.w eu.int/weag/eng/info/panel1.htm> (28 October 1999).

⁴⁶ "juste retour" is defined as the workshare in proportion to a country's investment in a project or purchases.

⁴⁷ "Western European Armaments Group – Panel III: Procedures and Economic Matters," Western European Union Website, Online, Available HTTP: <http://www.w eu.int/weag/eng/info/panel3.htm> (28 October 1999).

benefits. In an effort to bolster the strength of the WEAG and move toward the eventual goal of a single centralized research and procurement agency known as the European Armaments Agency (EAA), the WEU established the Western European Armaments Organization in November 1996 as a legal subsidiary body of the WEU.⁴⁸ The WEAO seeks to incorporate the R&D expertise of the WEAG with the ability to place contracts for weapons systems on behalf of participating nations. The organization was further bolstered with the inclusion of associate members and observers of the WEU such as Finland, Austria, and Sweden (a major producer of arms).⁴⁹

While the WEAG and WEAO seem impressive, they have also been controversial. Unlike U.S. efforts through programs such as DARPA, the European defense industry contributes nearly 50 percent of funding for research and development. Industry officials find this level too high because, "unlike civilian research projects, the costs are less likely to be recovered on the marketplace."⁵⁰ The most controversial aspect of the WEU efforts, however, revolves around the issue of *juste retour*. With many smaller arms producing members of the WEAG/WEAO, such as the Netherlands, Belgium, Greece, and Spain, the demands for a workshare in WEU projects given an investment remain constant. When combined with a long delay between project presentations and contract commitments, fewer projects than expected, national funding difficulties, and an unwillingness to fund and test projects in other nations, the workshare

⁴⁸"Western European Armaments Organisation," Western European Union Website, Online, Available HTTP: <http://www.weu.int/weao/home.htm> (27 March 1999).

⁴⁹"WEAO Grows in NATO's Shadow," *Intelligence Newsletter*, 4 December 1997, Online, Available: LEXIS- NEXIS Academic Universe (5 April 1999).

⁵⁰Rogers, 8.

issue has prevented the WEAO from moving toward the goal of the EAA and driving out the four largest arms producing nations.⁵¹

3. Organisation de Coopération Conjoint en matière d'Armement (OCCAR)

Though the WEAO is a subsidiary of a growing Western European Union, many defense officials have looked upon another arms planning agency, also founded in 1996, as the predecessor to the European Armaments Agency. The Organisation de Coopération Conjoint en matière d'Armement (OCCAR)⁵² was established by Europe's largest arms producing nations—initially France and Germany with the subsequent inclusion of the United Kingdom and Italy. Frustrated by the delays and bureaucracy associated with the WEU, the founding nations decided that a separate organization would have greater success. Unlike the WEAO, the smaller OCCAR does not currently have aspirations of becoming a European research and development organization. The mission of OCCAR remains to simply manage collaborative projects such as the Tiger attack helicopter, Roland surface-to-air missile system, and the HOT and MILAN anti-tank missiles.⁵³ The organization was strengthened in September 1998 when the founding nations began the process of giving OCCAR the legal power to place and manage contracts through the OCCAR Convention—a power previously held only by the WEAO.⁵⁴ The French National Assembly ratified the convention on 20 January 2000, following the earlier approval by the German Bundestag in December 1999. Italy's

⁵¹ Rogers, 8.

⁵² English Translation: Organisation for Joint Armaments Co-operation.

⁵³ "Talks Start On Successor to OCCAR Body," *Jane's Defence Weekly*, 15 October 1997: 17.

⁵⁴ Damian Kemp, "OCCAR Receives Licence to Manage Own Deals, Staff," *Jane's Defence Weekly*, 16 September 1998, Online, Available: LEXIS-NEXIS Academic Universe (5 April 1999).

parliament is currently studying the agreement and Britain is expected to ratify the convention soon.⁵⁵

The Baden-Baden agreement between France and Germany, signed in 1996, established five principles that have continued to guide OCCAR as it has grown. First of all, "an optimal cost/benefit ratio must be achieved in the choice of the contractor." Secondly, partner nations must harmonize both the long-term requirements of users (that is, their respective militaries) and policies on investment in technology. Thirdly, "the European industrial base should be strengthened by a substantial increase in competitiveness." The fourth principle waives the *juste retour* criterion for each project that normally accompanies joint ventures. The final principle declares that OCCAR is an open organization that will allow other nations to participate given an acceptance of the guiding principles and an ability to make a significant contribution to a cooperative project.⁵⁶ Though no additional nations have joined OCCAR since its founding in 1996, its past record of success, strong support by members' governments, and future legal status is sure to interest a number of Western European nations.

OCCAR's initial and future success can in large part be traced to its outright rejection of worksharing on individual projects. In the past, joint procurement agencies have relied on the application of *juste retour* in determining the share of work given to each member nation based on that country's purchases. OCCAR has moved away from a

⁵⁵ "OCCAR: An Organisation to Improve the Management of Programmes," Briefing Slides, Directorate for Cooperation and Industrial Affairs, Délégation Générale pour l'Armement, February 2000.

⁵⁶ Robert Godbold, Head of Corporate Support—OCCAR, "OCCAR," Accompanying Paper, Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

strict interpretation of this principle for specific programs and will instead "allot work across the spread of programmes it handles, permitting more efficient procurement."⁵⁷ As a sign of the expected success of the new organizational arrangement, five projects with British and Italian involvement are to be added to the four existing Franco-German projects currently managed by OCCAR.⁵⁸ Major Patrick Lefort, the Assistant Defense Cooperation Attaché at the French embassy in Washington, D.C., suggested that the Meteor air-to-air missile, the newly selected armament for British, French, and German Eurofighter aircraft, could possibly be managed by OCCAR. The A400M transport aircraft, Europe's projected strategic airlift platform, could also end up under OCCAR direction.⁵⁹ Such projects would presumably bring in additional nations to the organization. While such outright rejection of *juste retour* is attractive to nations with large defense industrial bases, smaller nations who would like to participate in joint development and production of such weapons systems view worksharing as an important means of supporting their own national producers.

With dueling organizations both vying to be the foundation of the European Armaments Agency, the future of arms cooperation remains uncertain. The four largest arms producing nations have legitimate concerns about the efficiency and cost savings of cooperation being diluted by *juste retour* initiatives that satisfy smaller producing nations. The suspicions of nations such as Greece and Spain, however, currently prevent

⁵⁷ Alexander Nicoll, "Arms Procurement Treaty Signed by Four Nations: Boost for European Agency," *The Financial Times*, 10 September 1998, 6, Online, Available: LEXIS-NEXIS Academic Universe (5 April 1999).

⁵⁸ "A Treaty Giving Legal Status to OCCAR, the European Weapons Procurement Agency," *Aviation Week and Space Technology*, 14 September 1998, 23, Online, Available: LEXIS-NEXIS Academic Universe (5 April 1999).

OCCAR from becoming the cornerstone. Despite such differences, negotiations will continue to merge the WEU institutions with OCCAR, for the idea of European arms cooperation is enshrined in the European Union's 1991 Maastricht Treaty.⁶⁰ Furthermore, the benefits of common procurement are widely acknowledged. Efficient common European defense procurement could result in savings of between 5 to 11 billion Euros (\$5.1-11.2 billion) or roughly 7 to 17 percent of total EU procurement expenditures.⁶¹ For defense firms, a single European procurement agency would encourage greater economies of scale and cheaper research and development costs. It is safe to say that arms cooperation will continue in Europe. In government and industrial circles, a growing consensus that the European procurement agency will take on OCCAR's features is growing as the organization is strengthened. In the opinion of Peter Scaruppe, Counselor for Defense Research and Engineering at the German embassy in Washington, D.C., it is only a matter of time before other nations (that is, smaller nations) accept the lack of *juste retour* and join OCCAR. The Netherlands is on the verge of joining and both Spain and Sweden have expressed interest.⁶² The question of how such an organization would interact with NATO has also not been resolved. Only after definitive plans have been formulated will nations hand over the sovereign power of procurement.

⁵⁹ Major Patrick Lefort (DGA), Assistant Defense Cooperation Attaché, Embassy of France, Personal Interview, 19 May 2000.

⁶⁰ Theresa Hitchens and Brooks Tigner, "Clashing Agendas Threaten Europe Arms Unity," *Defense News*, 30 March – 5 April 1998, 3.

⁶¹ Vlachos.

B. GOVERNMENTAL INFLUENCE ON THE INDUSTRIAL CLIMATE

At the close of the twentieth century, U.S. defense companies had solidly established themselves as the leaders of the global defense industry. Whether it was stealth, precision guidance, or command and control systems, American defense contractors have and continue to be viewed as the leaders in many technology areas. Following the 1993 "Last Supper" given by then Deputy Secretary of Defense William Perry,⁶³ the consolidation process in the United States has produced a greatly reduced defense-industrial base. Despite dramatic decreases in defense budgets following the collapse of the Soviet Union in 1991, the United States remains the largest single arms market in world. As a result of such a market and subsequent mergers, American contractors have accrued many benefits in terms of market share, economies of scale, and shared resources. Though prime contractors in their own markets and possessing great technical skills, many Western European firms were often viewed as second tier manufacturers when compared to American primes. While possessing technical skills equal to or better than their U.S. competitors in many areas, European companies have suffered from decreased economies of scale brought about by smaller national markets.

1. Privatization Efforts in the Defense Industry

Since the days of ancient civilizations, private industries have toiled and earned a profit supplying goods and services to the society. Shortly after the development of the modern nation-state through the Peace of Westphalia in 1648, the concept of state-owned

⁶² Peter Scaruppe, Counselor, Defense Research and Engineering (Economics), Embassy of the Federal Republic of Germany, Washington, D.C., Personal Interview, 18 May 2000.

⁶³ After a dinner for the CEOs of America's defense firms at the Pentagon in 1993, Dr. Perry bluntly told the assembled executives that he expected to see half of them in five years time.

industries appeared. Jean-Baptiste Colbert was appointed Louis XIV's controller general of finance in 1665 and quickly instituted a number of mercantilist policies—including state ownership of certain manufacturing firms. It was not until the twentieth century, however, that state-owned enterprises (SOEs) achieved prominence as a device for state control. With their strategic value to the nation, armaments companies were a natural choice for state ownership. Many Western European governments came to believe that while Adam Smith's "invisible hand" would guide most industrial owners toward achieving the societal good, only the state acting as owner, manager, and consumer of the armaments industry could achieve that positive outcome.

a. *Inherent Agency Conflicts in SOEs*

While it is often dangerous to speak in generalities, a number of broad statements can be made about state-owned enterprises (SOEs). In nations throughout the world, SOEs were established outright or through the nationalization of private sector companies to meet political goals. In the defense sector, various national security concerns drove governments to nationalization. A secondary but still important concern remains the desire to provide stable employment. In stark contrast to the interests of the state, private sector companies are inherently focused on "the economic objective of maximizing profits and wealth for shareholders."⁶⁴ Such lack of emphasis on or dismissal of profit maximization in favor of political concerns, compounded with the inability of the state "to motivate the firms in its portfolio to attain competitive standards in terms of efficiency, productivity, innovation, and orientation towards the consumer,"

⁶⁴ William Megginson, "Privatization," *Foreign Policy*, Spring 2000, 15.

have led many to dismiss SOEs as ineffective in a modern market.⁶⁵ In contrast, privately held corporations, it is argued, are more flexible and productive with the goal of expanding profits at the forefront. Though SOEs can be effective under the right conditions, more-often-than-not, the arguments against them have been proven true.

In the years since Margaret Thatcher denationalized many of Britain's state-owned enterprises and introduced the term and the large-scale application of "privatization,"⁶⁶ the benefits and detriments of state-owned enterprises (SOEs) have been the focus of intense debate. One undisputed fact that has emerged is that state ownership places national governments in the difficult position of acting in multiple but opposing capacities. In the acquisition process of a weapons system, the government assumes the role of both seller and buyer. While the national military is guaranteed access to necessary weapons systems through the government ownership of the producer, the question of whether it is getting the best or most affordable system possible arises. In addition, the dual nature of SOEs also introduces the first corporate governance conflict. A corporate governance⁶⁷ conflict arises when the positions of both manager and owner are occupied by the national government. While at first glance, it might appear that government participation on both levels would lead to greater harmony in corporate interests, such appearances are false. Saul Estrin, in his article "State Ownership, Corporate Governance and Privatisation," contends that conflicting interests will arise in any firm where ownership and management is separated, for "the owners bear the

⁶⁵ Saul Estrin, "State Ownership, Corporate Governance and Privatisation," in *Corporate Governance, State-Owned Enterprises and Privatisation*, (Paris: OECD, 1998), 11.

⁶⁶ Megginson, 15.

residual risk and receive the residual reward, but it is the managers who control the decision-making process and therefore make all the decisions which influence those risks and rewards.”⁶⁸ These differing roles often lead to differing interests, opinions, and reactions.

While both parties are committed to the success of the firm, the reasons and effects of that success are embodied in the “agency” model. In this modern corporate model, “the ‘principal’— the owner—seeks an efficient way to ensure that the ‘agent’—management—acts in the principal’s rather than the agent’s best interest.”⁶⁹ In the private sector, a board of directors monitors the managers’ activities and performance and ensures that interests of shareholders are placed ahead of those of the managers—one of the best monitoring measures being the price of the firm’s stock on the market. With a public sector firm, however, the state, “in the absence of a market for public corporation stock, does not have the possibility to evaluate performance by following share price fluctuations.”⁷⁰ Furthermore, with no trading of shares in a market, “sanctions for bad performance and incentives to managers” are removed. Hence, “[c]ivil servants, who are not entitled to the gains due to improved efficiency, have no financial incentive to monitor public firms.”⁷¹ The end result is an inefficient, poorly monitored firm.

⁶⁷ Corporate governance can be described as the rules that seek to square the interests of a corporation’s managers with those of its owners.

⁶⁸ Saul Estrin, “State Ownership, Corporate Governance and Privatisation,” in *Corporate Governance, State-Owned Enterprises and Privatisation*, (Paris: OECD), 12.

⁶⁹ Estrin, 13.

⁷⁰ Estrin, 15.

⁷¹ Estrin, 15.

b. History of Nationalization

With very few exceptions, the United States government has deferred the operation of manufacturing and service companies to the private sector. Nationalization remains a foreign concept associated with Third World nations and socialism. Many nations in Western Europe, however, have never viewed government ownership of enterprises with the contempt of most Americans. Following World War II, both Britain and France nationalized a number of manufacturers as socialist governments came to power. In a stunning victory over Winston Churchill and the Conservative Party, Clement Richard Atlee and the Labour Party assumed power in 1945. Atlee and Sir Richard Stafford Cripps (President of the Board of Trade, 1945-47 and Chancellor of the Exchequer, 1947-50) launched a nationalization campaign that put the iron and steel industries, railroads, coal mines, and electrical and gas utilities under government control. Defense companies such as British Aerospace were also nationalized under subsequent governments.

Perhaps more than any other European nation, France came to champion the role of the state in industry. Reinforced in this century by the Great Depression, the belief that government involvement in industry was necessary for its success can be traced back to the seventeenth century. Jean-Baptiste Colbert, Louis XIV's controller general of finance advocated state direction of industry and agriculture. It was not until the twentieth century, however, that the state actually nationalized companies on a large scale. In 1936, the short-lived leftist regime of Léon Blum nationalized parts of the

defense industry.⁷² With historical precedent already supporting government control, the role of the state was cemented by the French defeat and subsequent German occupation in 1940. Feelings of betrayal by the elite industrialists,⁷³ “the need for rapid reconstruction and the desire for better labor conditions” solidified public support for state ownership.⁷⁴ Given the titles of *Colbertisme* and state *dirigisme*, government intervention in industry entailed “an under-emphasis on the market and a sheltering of firms from its effects.”⁷⁵ With the exception of Raymond Barre’s tenure as prime minister (1976-1981) during President Valéry Giscard d’Estaing’s administration, *dirigiste* policies continued unabated until economic conditions forced politicians to move towards a free-market economy and privatized companies.

c. Move Towards Privatization

While in some cases, government control of a manufacturer or service provider is in the best interest of society, the state has recently ceded control and ownership of SOEs to private investors in many nations throughout the world. These nations have recognized that the market offers superior monitoring and increased efficiency. In Europe alone, governments have sold more than \$200 billion worth of SOEs since 1990. While the motive behind such sales was often to bring in needed cash, privatization has forced many companies to compete for the first time—a decidedly

⁷² J. Barkley Rosser, Jr. and Marina V. Rosser, “Chapter 7: Whither Indicative Planning? The Case of France,” *Comparative Economics in a Transforming World Economy*, (Chicago: Irwin, 1996), 168.

⁷³ Many French industrialists, including the owners of Renault, were accused of collaborating with the Germans during the occupation.

⁷⁴ Warren C. Baum, *The Economy and the State*, (Princeton: Princeton University Press: 1958), 171-175.

⁷⁵ Christel Lane, *Industry and Society in Europe*, (Aldershot, UK: Edward Elgar Publishing Ltd., 1995), 177.

positive outcome.⁷⁶ Public utilities and railroads have been put on the block throughout Western Europe, but only Great Britain has withdrawn completely from the armaments business. Many continental European countries, most notably France and Italy, have balked at turning over complete control of defense firms to the private sector. In recent years, however, economic realities have trumped socialist ideology and antiquated national security concerns, leading to at least partial privatization throughout Western Europe.

In 1979, British Prime Minister Margaret Thatcher and the Conservative Party embraced the arduous process of dismantling the socialist democratic state and began an international movement toward privatization. Faced with entrenched Labour foes, Thatcher and the other Tories moved decisively but carefully. As she was to later explain in her memoirs, Lady Thatcher believed strongly that

The state should not be in business. State ownership effectively removes—or at least radically reduces—the threat of bankruptcy which is a discipline on privately owned firms. Investment in state-owned industries is regarded as just another call on the Exchequer, competing for money with schools or roads. As a result, decisions about investment are made according to criteria quite different from those which would apply to a business in the private sector.⁷⁷

The first industries to shed the bonds of state ownership were the aerospace and shipbuilding industries. In 1981, the British government “returned BAe to the private sector” while retaining a 48.43 percent stake in the company. In May 1985, the Thatcher government sold its remaining shares and kept only “a special Golden Share to prevent

⁷⁶ “Europe’s Opportunity,” *The Economist*, European Business Survey, 29 April 2000, 20.

Bae's acquisition by non-British owners."⁷⁸ As a private sector firm, British Aerospace became both a British and European powerhouse in the aerospace industry.

In France, Charles de Gaulle and his conservative successors were driven by concern for national security and French defense independence to continue the nationalization of the French defense industry. In contrast, the fundamental party tenet of public ownership inspired French Socialists to adopt the same nationalization policy. Neither patriotism nor ideology, however, could fight the realities of economics. A number of factors combined to force the French government into decreasing state shareholdings in defense firms. The most significant political factor was the support of Gaullist politicians for privatization. Preferring market economics to a perceived national pride in its arms industry, then Prime Minister Jacques Chirac and other conservatives began the process of privatization during the first period of cohabitation with the Socialists in 1986. Serving as president since 1995 in the second cohabitation government with Socialist Prime Minister Lionel Jospin, Chirac has continued to privatize SOEs, but he faces cultural and institutional barriers.

In France, the *dirigiste* system dominated the industrial and financial sectors until the 1980's. With its strength in the distribution of capital from the financial concerns to industries, the French state was able to exert great influence through *dirigiste* policies. Whereas in the United States and the United Kingdom capital is raised through capital markets and devices such as the Initial Public Offering (IPO), large French firms have long relied on capital in the form of long term bank credits from government-run

⁷⁷ Margaret Thatcher, *The Downing Street Years*, (New York: HarperCollins Publishers, 1993), 677.

banking institutions.⁷⁹ While French banks such as Banque Nationale de Paris and Cr dit Lyonnais provided an ample supply of capital, the system created a dependence on banks for capital and as a result, a dependence on the state. With finite resources, the reliance upon the state brought about an end to the great success of French industry during the early 1970's. "Many of the increasingly evident weaknesses of the French manufacturing industry became attributed to the highly dominant role of the state. What was once the success of the state gradually became regarded as its failure."⁸⁰

The financial problems in the French defense industry resulted not only from its corporate structure but also from events over which it had little control. While the United States and other NATO nations significantly decreased their defense budgets in anticipation of the elusive "peace dividend," France's reaction to the end of the Cold War was decidedly different. The French government did not make the drastic cuts in defense spending that its Western European and North American counterparts had made. The additional years of high procurement following the Soviet disintegration did not prepare defense firms for the lean years ahead, for such spending could not be maintained long after the threat of Warsaw Pact invasion had faded. Between 1994 and 1997, military equipment spending decreased from Ffr102.5 billion to Ffr86.0 billion.⁸¹ In 1997, the French left-wing government promised to maintain equipment spending levels at Ffr85.0 billion per year in 1998 francs during the six year defense expenditure plan

⁷⁸ Forecast International, Defense & Aerospace Companies—Volume 2, "British Aerospace plc," 2nd Quarter, 1998, CD-ROM.

⁷⁹ Lane, 178.

⁸⁰ Lane, 180.

⁸¹ Forecast International, Foreign Military Markets, NATO and Europe, "France (Market Overview)," 2nd Quarter, 1998, CD-ROM.

(1997-2002). "Taking inflation into account, the figure for 2000 should have been Ffr86.4 billion," however, the defense ministry announced that the 2000 budget would earmark Ffr85.0 billion for equipment, a decrease of Ffr1.4 billion.⁸² In recent years, the end result of France's belated defense procurement cuts was evidenced in a weakened domestic defense industry competing against Western European and American competitors who had already undergone restructuring.

The needs of France's large defense-industrial base have long exceeded those of the French military. As a result, France became a major arms exporter and established a reputation for dealing with customers most Western nations deemed questionable. Such sales were and continue to be viewed as necessary, for the nation's industry has become reliant "on export sales to permit the economic procurement of weapons for France's own use by amortizing research and development (R&D) and overhead costs over longer production runs."⁸³ With the French defense procurement budget cut drastically and an industry still geared toward Cold War production, the French industry was particularly hard hit when French export sales of arms plummeted after the events of 1991. Export sales of \$5.2 billion in 1990 dropped to a low of \$1.6 billion in 1993.⁸⁴ Export sales have since recovered with estimated sales of between \$5.9

⁸² J. A. C. Lewis, "France Breaks Promise Not To Cut Spending," *Jane's Defence Weekly*, 21 July 1999, 8.

⁸³ U.S. Congress, Office of Technology Assessment, *Lessons in Restructuring Defense Industry: The French Experience—Background Paper*, OTA-BP-ISC-96 (Washington, D.C.: U.S. Government Printing Office, June 1992), 8.

⁸⁴ "Table IV: Value of Arms Transfer Deliveries and Agreements, 1987-1997 By Major Supplier and Recipient Region," *World Military Expenditures and Arms Transfers 1998*, Bureau of Arms Control, U.S. Department of State, Available HTTP:

http://www.state.gov/www/global/arms/bureau_ac/wmeat98/w98tbl4.pdf (7 May 2000).

billion and \$7.6 billion in 1997⁸⁵, but a great deal of damage to the unprepared French industry had already been done. The sales decline had reduced production, undermined the R&D funding mechanism, and harmed French efforts to remain at the forefront of defense technology.⁸⁶

With the future of France's sophisticated defense-industrial base threatened, the French government began looking for a panacea that would not only preserve capabilities but advance France's position as a major arms producer as well. Taking a lesson from the United States, many Western European nations came to recognize that only pan-European consolidation could produce the scale necessary to compete in the global market. As one of three major Western European arms-producing nations, France believed that its defense firms should play a crucial role in any consolidation efforts. The private sector defense firms in Britain and Germany, however, were not interested in merging with French counterparts that were owned and managed by the French state. Though it had privatized state-owned enterprises in many industries, the government sought to maintain control of the public utilities and defense industry for their respective monopoly and national security reasons. Potential British and German partners, however, have insisted on privatization. Through privatization initiatives involving the flagship companies Thomson-CSF and Aerospatiale, the French government has sought to appease their market-oriented critics.

⁸⁵ Recent figures for French arms export sales vary depending on the source. Recently reported French government figures, required by the 1998 European Code of Conduct for arms sales, estimate sales of \$7.6 billion in 1997 and \$7.0 billion in 1998 (George Bloch, "France Discloses Arms Sales," *Washington Times*, 9 April 2000, C10.) Figures released by the U.S. State Department's Bureau of Arms Control give the much lower figure of \$5.9 billion in 1997.

⁸⁶ U.S. Congress, Office of Technology Assessment, 9 & 32.

In true Gallic fashion, however, the French have devised a method of privatization that still allows the government to maintain strong influence if not outright control over former state-owned enterprises. In what the Organisation for Economic Co-Operation and Development has labeled, privatization *à la française*, the French government has managed "to transfer control from the State to coalitions of investors willing to keep their shares for a long period and obliged, when selling, to give each other the first right of purchase to ensure stability."⁸⁷ In contrast to the competitive bidding method of privatization which most nations use to get the top price for valued SOEs, the French have employed a strategic method of selecting a *noyau dur*, or "close-knit group of core shareholders," to "ensure some degree of national control over the capital handed over to the private sector."⁸⁸ With state-owned lending institutions such as Banque Nationale de Paris and Crédit Lyonnais no longer the sole source of capital and civil servants no longer managing daily affairs, the core group of shareholders lends stability and maintains state influence.

Recent privatization efforts within the French defense industry have involved the use of *noyaux dur* through the practice of *participations croisées*, or cross-shareholding, *participations d'autocontrôle*, or self-shareholding,⁸⁹ and continued government shareholding, albeit at much lower level. Cross-shareholding involves the purchase of company shares by a stable outside group of French firms while self-shareholding "refers to ownership of shares in a group by that group's own constituent

⁸⁷ *OECD Economic Surveys: France 1996-1997*, (Paris: Organisation for Economic Co-Operation and Development, 1997), 120.

⁸⁸ François Morin, "The Privatisation Process and Corporate Governance: The French Case," in *Corporate Governance, State-Owned Enterprises and Privatisation*, (Paris: OECD), 64.

elements, *i.e.* by subsidiaries (or other firms controlled by the parent company).”⁹⁰ The recent privatization of Thomson-CSF, the defense electronics manufacturer, illustrates both self and cross-shareholding. After privatization, Thomson-CSF owners included Thomson SA—a state-owned holding company (33.4%), Alcatel Alsthom—a French defense conglomerate (25%), Dassault Aviation—a private sector French aerospace firm (5.8%), private individual investors (33%), and employees (2%).⁹¹ France’s other defense industry flagship, Aerospatiale-Matra⁹², is evidence of even more blatant government control. Touted by the French state as a privatization of the completely state-owned Aerospatiale through merger with Matra Hautes Technologies, a division of the private sector firm, Lagardère Group, Aerospatiale-Matra has instead shown the continued insistence of the French government to stay actively involved in the industry, even after privatization. This message was declared through its maintenance of a 47.8 percent stake in the new firm and joint statement by the Ministries of Defense, Economy, and Transport: “The state will remain, in a decisive manner, the first shareholder of Aerospatiale-Matra.”⁹³

2. Corporate Governance Differences

The transformation of a state-owned enterprise into a privatized company reflects not only a fundamental shift in the firm’s ownership but also the owner-management relationship. The difference in privatization efforts in Britain and France, competitive

⁸⁹ Morin, 66.

⁹⁰ Morin, 66.

⁹¹ Tim Ripley, “Western European Aerospace & Defence Industries—The Ownership Jigsaw,” *Defence Systems Daily*, Available HTTP: <http://defence-data.com/current/pagerip1.htm> (6 May 2000).

⁹² Another example of cross-shareholding is the 46.5 percent stake in Dassault held by Aerospatiale-Matra (Ripley).

⁹³ Christina MacKenzie, “Paris Keeps Aerospatiale-Matra Reins,” *Defense News*, 1 March 1999, 19.

bidding versus strategic formation, illustrates the distinct and differing natures of corporate relations between continental Europe and the United Kingdom. The most significant distinction, tied directly to the issue of privatization, is that of corporate governance. Corporate governance, or the relationship of a corporate entity's owners with its management team and resultant issues, remains a largely unique characteristic of individual nations. The differences between national corporate governance systems, however, have been highlighted as cross-border mergers between national manufacturers have produced pan-national companies. In contrast to other industries, the defense industries of the United States and Western Europe are behind in dealing with the issue. Consolidation within the industry has occurred in the past; however, it remained largely restricted to national markets. Cross-border participation involved joint ventures and equity purchases, but no outright mergers of defense firms.

With state ownership seen as a major obstacle to Western European restructuring, privatization efforts in France, Spain, and Italy have focused on decreasing the role of the state in enterprises. As described earlier, however, privatization efforts in these nations have uncovered fundamental differences in the way Western European governments and companies view the owner-management relationship. While each nation maintains its own corporate governance system, the business world has slowly seen a convergence of various systems in Western Europe and the United States—another impact of globalization in the corporate world. The United States remains unique in that it has no institutionalized national system of corporate governance. Institutions such as the Securities and Exchange Commission (SEC) monitor particular national sectors, but each state is allowed to adopt its own broad system. In Western Europe, national systems are

prevalent but differ greatly in the details. Despite such complexity, economists often divide governance systems into two camps.

Dr. John Harper of the U.S. General Accounting Office, in his examination of corporate governance and corporate performance in the U.S. and European defense industries, separated the various systems into Anglo-American and Continental European governance.⁹⁴ The OECD similarly draws a distinction between “outsider” and “insider” systems. Diffuse ownership and high turnover of shares characterize the outsider system, representative of the United States and the United Kingdom. In contrast, the insider system, as seen in Germany, Japan, and other European nations, is marked by high ownership concentration by small groups that maintain a long-term, stable relationship with the firm.⁹⁵ Dispersed ownership in outsider systems takes the form of individual household investors, its purest form, and institutional investors (for example, pension funds, insurance companies, mutual funds) who provide proxy ownership. The shareholding figures for the United States and the United Kingdom show the importance of dispersed owners (Table 1)⁹⁶. In insider systems such as Germany and France, institutional and household investors still play a significant role, however, private companies provide the desired ownership stability in these nations.

⁹⁴ John K. Harper, U.S. General Accounting Office, “Corporate Governance and Performance During Consolidation of the United States and European Defense Industries,” Presented Paper, January 1999, 2.

⁹⁵ *OECD Economic Surveys: United Kingdom 1997-1998*, (Paris: Organisation for Economic Co-Operation and Development, 1998), 128.

⁹⁶ Karel Lannoo, “Corporate Governance in Europe: Report of a CEPS Working Party,” Centre for European Policy Studies, June 1995, 14. Online, Available HTTP: <http://www.ecgn.ulb.ac.be/ecgn/docs/codes/cepsreport.pdf> (4 May 2000).

Table 1: The Structure of Shareholding in Selected Nations (% of total)
Source: Centre for European Policy Studies

	GERMANY	FRANCE	UK	US
(as at end of year)	1990	1992	1993	1992
Institutional Investors	22	23	59.3	31.2
Banks	10		0.6	0.3
Pension Funds/Insurers	12		51.5	23.9
Others (Unit trusts)			7.2	7
Households	17	34	19.3	48.1
Private Companies	42	21	4	14.1
Public Authorities	5	2	1.3	
Foreign Investors	14	20	16.3	6.6

The OECD warns that it is dangerous to attempt to separate national systems into the two camps. The most significant players in Western European defense industrial restructuring all have differing systems that incorporate various aspects of both the outsider and insider systems. A passage from a recent article in *The Economist* illustrates these differences.

Like Britain, the Netherlands has a large stockmarket dominated by pension funds; unlike Britain, it shares the principles of its corporate laws with France and two-tier board system with Germany. Unlike France, Germany has a tradition of collective leadership, hence the prevalence of "speakers of the board" rather than chairmen. Unlike their German peers, Spanish unions have no representation on boards. And so on.⁹⁷

For the purposes of edification, however, three generalized models of corporate governance will be examined.

Anglo-American Corporate Governance—marked by no controlling shareholder, control of the directors by "strict enforcement of fiduciary duties" and an expected sense of loyalty, and separated offices of Chairman and Chief Executive Officer.⁹⁸ This system is most distinguishable by the high degree of legal protection of investors.⁹⁹

German Corporate Governance—marked by more concentrated shareholding (for example, banks and insurance companies) by members who exert majority control, control of directors performed through close monitoring by shareholders, and a shareholders' supervisory board with creditors' and employees' representatives.¹⁰⁰

French Corporate Governance—marked by large shareholder concentration, cross-shareholding by companies, and a board dominated by the *Président directeur général* (PDG) who assumes the role of both the Chairman and CEO.¹⁰¹

a. Anglo-American Corporate Governance

The defense industries of the United States and Britain are representative of a market-based system of corporate governance. As mentioned before, ownership concentration within the Anglo-American system is extremely low. The widely dispersed

⁹⁷ "Lean, Mean, European," European Business Survey, *The Economist*, 29 April-5 May 2000, 6.

⁹⁸ *OECD Economic Surveys: France 1996-1997*, 111-113..

⁹⁹ Andrei Schleifer and Robert W. Vishny, *A Survey of Corporate Governance*, Working Paper Series, Cambridge, MA: National Bureau of Economic Research, Inc., 1996, 25.

¹⁰⁰ *OECD Economic Surveys: France 1996-1997*, 109-113.

nature of equity investments has spurred a strong legal protection of small investors. The lack of concentrated ownership also encouraged the interest in corporate governance itself. In the United States and Britain, concern arose from the belief that "management was pursuing objectives other than long-term returns to shareholders, while at the same time, managers were able to raise their own compensation in spite of poor company performance."¹⁰² In a system with concentrated ownership, large shareholders wield their power against managers more easily than smaller, dispersed stakeholders. It is this fundamental difference in types and concentration of ownership of the Anglo-American and Continental European systems that is most prevalent when dealing with defense firms in Western Europe.

An analysis of various national corporate governance systems will reveal a number of advantages and disadvantages in each. The Anglo-American governance system with its principal objective of aligning the interests of shareholders and managers remains unlike most corporate governance systems throughout the world. With well-developed capital markets, the United States and the United Kingdom rely on equity investments and less on large institutional creditors. It is this arrangement that gives the Anglo-American corporate governance system one of its greatest advantages—flexibility. The capital market in the system is able to respond much faster than the system of *hausbanks* (house banks) prevalent throughout continental Europe.¹⁰³ The result of such a funding arrangement is the often-mentioned dispersed ownership. In the United

¹⁰¹ *OECD Economic Surveys: France 1996-1997*, 111-113.

¹⁰² Joanna R. Shelton, "The Importance of Corporate Governance in OECD and Non-OECD Economies. The Draft OECD Principles," Speech delivered at the Corporate Governance in Asia: A Comparative Perspective Conference, 3 March 1999, Available HTTP: <http://www.oecd.org> (2 September 1999).

Kingdom, dispersed ownership has evolved from household investors to today's proxy ownership through pension, insurance company, and mutual fund investors (Table 2)¹⁰⁴. This is reflected in a general decline in individual household shareholders and the subsequent increase in shareholdings by institutional investors (that is, pension funds, insurance companies). An analysis of the British shareholding concentration numbers also shows little reliance upon banks and industry for investment equity.

Table 2: Aggregate Share-Ownership of Listed Companies in the UK
Source: Centre for European Policy Studies

	1963	1969	1975	1981	1989	1993
Pension Funds	6.4	9.0	16.8	26.7	30.6	34.2
Insurance Companies	10.0	12.2	15.9	20.5	18.6	17.3
Unit Trusts	1.3	2.9	4.1	3.6	5.9	6.6
Banks	1.3	1.7	0.7	0.3	0.7	0.6
Investm. Trusts, Other	11.3	10.1	10.5	6.8	2.7	3.1
Households	56.1	49.5	39.8	30.4	22.9	19.3
Public Sector	1.5	2.6	3.6	3.0	2.0	1.3
Industry & Commerce	5.1	5.4	3.0	5.1	3.8	1.5
Foreign Investors	7.0	6.6	5.6	3.6	12.8	16.3

¹⁰³ Harper, 33.

¹⁰⁴ Lannoo, 16.

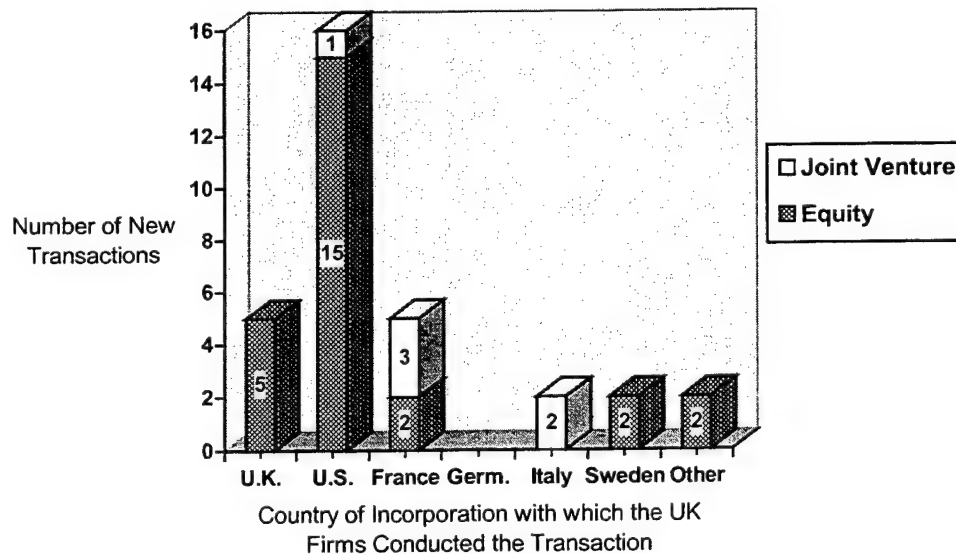
The flexibility and responsiveness derived from dispersed ownership also gives an edge to companies in certain industries. With the rapid infusion of information technology and its continual progression into the defense industry, the ability to adapt quickly is becoming more important than stability. Traditional aerospace firms such as Boeing and British Aerospace have sought to capitalize on this by transforming into systems integrators for a variety of weapons platforms. Firms that can capitalize on the quality of responsiveness will progress at the expense of traditional, stable companies.

With a shared reliance on capital markets as the funding mechanism and dispersed ownership within both the United States and the United Kingdom, it would logically follow that the number of equity transactions between the two nations would be greater than the number of transactions between the U.S./U.K. and a continental European nation more reliant on institutional creditors and concentrated ownership. The focus on consolidation and possible transatlantic mergers makes this issue particularly significant within the defense industry. Recent figures released by the U.S. Department of Defense verify this logic. Between January 1998 and March 1999, British defense and aerospace firms handled twenty-six equity transactions. Twenty of those twenty-six transactions (77 percent) were with companies in the Anglo-American corporate governance system. Looking at equity investments alone, the disparity between transactions with companies in the Anglo-American corporate governance system versus those in the Continental system, a ratio of 10 : 1, is clearly seen (Figure 2).¹⁰⁵

¹⁰⁵ Derived from U.S. Department of Defense data, published in the Defense Science Board Task Force on Globalization and Security report, 13.

The high level of financial interaction between members of the Anglo-American corporate governance system is also represented in figures of British investment in American defense firms. In order to work on classified DoD contracts, defense firms with foreign owners must first receive permission from various U.S. government agencies in the form of a security agreement. In its globalization report, the Defense Science Board noted a “disproportionate” number of such agreements with British firms (32) in comparison to all other foreign companies combined (31).¹⁰⁶ From this disparity in numbers, it can be inferred that the U.S. Department of Defense is more comfortable dealing with foreign firms that are similar to American companies. Extended further, this argument implies that equity purchases between companies in nations with unlike corporate governance systems will be limited until the two systems become more similar.

Figure 2: Transactions by British Defense/Aerospace Companies
Source: Defense Science Board



¹⁰⁶ Defense Science Board, 12.

b. German Corporate Governance

The private nature of Germany's business community often leads many to conclude that Germany's corporate structure is similar to that of Britain or the United States. Germany's corporate governance system, however, remains decidedly continental. A breakdown of the nation's ownership concentration solidifies this contention (Table 3)¹⁰⁷. The percentage of shares held by German industry has remained relatively constant and concentrated since 1960 with percentages between 41 and 45 percent. Like Britain and the United States, Germany has seen a decline in household shareholding. While insurance companies have grown as institutional investors, modern dispersed ownership in the form of pension funds and mutual funds had not by 1990. German public limited companies still remain wedded to industrial investment that acts as a stable ownership mechanism.

While the term *hausbank* used to describe a relationship whereby a single bank provides capital to a firm originated in Germany, the relative importance of banks as investors and board representatives has greatly declined.¹⁰⁸ Nevertheless, Germany remains representative of continental Europe with respect to funding mechanisms. The strength of a nation's stock market is an indicator of the market's importance in providing companies with capital. A measure of this strength, market capitalization as a percentage of the national GDP, shows the great difference between the Anglo-American nations and continental Europe. Figures from the Federation of European Stock Exchanges cited in the Centre for European Policy Studies report on corporate governance indicate that

¹⁰⁷ Lannoo, 15.

¹⁰⁸ Lannoo, 9.

market capitalization is strongest in the United Kingdom and the United States. In 1993, stock market capitalization as a percentage of GDP in Britain was 139 percent and 83.5 percent in the United States (70.3 percent NYSE and 13.2 percent NASDAQ). In contrast, Germany's market capitalization was 25.1 percent of the nation's GDP.¹⁰⁹ Though the *hausbank* may no longer dominate as the primary creditor, Germany's stock markets have not yet matched the strength of those in the Anglo-American nations.

Table 3: Aggregate Share-Ownership of German Listed Companies (%)
Source: Centre for European Policy Studies

	1960	1970	1980	1985	1990
Industry	44	41	45	43	42
Households	27	28	19	18	17
Foreign Investors	6	8	11	13	14
Insurance Companies	3	4	6	9	12
Banks	6	7	9	8	10
Government	14	11	10	9	5

¹⁰⁹ Lannoo, 9-10. Other European figures: France (37.9%), Italy (15.1%), Spain (25.9%), EU 15 (43.8%), EU minus UK (30%)

c. *French Corporate Governance*

During the 1980's and 1990's, the French government agreed to decrease its stake in nationalized firms as it began a privatization movement. As discussed earlier however, the state's focus during its privatization efforts was not on an eventual market-based system but strategic formation. Through the use of *noyaux dur* in cross and self-shareholdings and continued state ownership, the French government has managed to preserve the intrinsic advantage gained from concentrated ownership—stability. A result of such an ownership structure is that managers are shielded “from the short-term pressures of the market by making a change in corporate control more difficult.” While protection against market forces has insulated French defense firms as they belatedly sought to restructure and “may be conducive to long-term, relation-specific investments,” it “also weakens pressures to maximize performance.”¹¹⁰

American and British industrialists have favored the flexibility that capital markets give them; however, their French counterparts maintain a solid, stable structure in the face of great technological change. In theory, such stability allows the core owners to maintain tighter control over managers. The reality, on the other hand, has often proven to the contrary. “Core shareholders, who are meant to keep a watchful eye on managers, often turn out to be too patient, and can be unwilling to cede control even when it makes obvious commercial sense.”¹¹¹ Stability within the ownership structure, it has been argued, also creates a long-term vision, lower capital costs, and greater competitiveness. Stability, in contrast, “can also hinder companies from responding

¹¹⁰ *OECD Economic Surveys: France 1996-1997*, 111.

¹¹¹ “Cross About Holdings,” European Business Survey, *The Economist*, 29 April-5 May 2000, 13.

rapidly to new technology or from easily redeploying workers from declining sectors to growing ones”¹¹²—a strength of Anglo-American firms. As the defense industry continues to incorporate information technology and other new technologies, Anglo-American firms that can respond quickly will inevitably take a leadership position. While cross-shareholding may encourage technology sharing between companies (for example, Thomson-CSF and Alcatel Alsthom, a major shareholder in Thomson, have negotiated a strategic partnership to transfer commercial technology from Alcatel to Thomson¹¹³), may help French firms respond to foreign competition, they will continue to be inhibited. Both the receiving and donor companies are affected by the flexibility weakness of the concentrated ownership system dominated by industry investors.

Like the German corporate governance system, industry owners play a large role in the French ownership scheme. On an aggregate scale, industry accounted for a 21 percent stake in French listed companies (Table 4). Within the French defense industry, this figure is much higher. Similarly, the state’s share in the defense industry is much higher than the aggregate figure of 2 percent in 1992. Such differences merely highlight the strategic importance of concentrated ownership by industry and government actors not only in France but also in much of continental Europe. The OECD has often stated that no single corporate governance system is superior to another. With respect to the global defense industry, however, certain elements of national corporate governance systems have either assisted or hindered the financial success of defense firms.

¹¹² Bruce K. MacLaury, foreword to *Financial Integration, Corporate Governance, and the Performance of Multinational Companies* by Mitsuhiro Fukao, (Washington, D.C.: The Brookings Institution, 1995), vii.

¹¹³ Major Patrick Lefort (DGA), Assistant Defense Cooperation Attaché, Embassy of France, Personal Interview, 19 May 2000.

Ownership concentration, one such element, has proven decisive in maintaining stability in Western European defense firms and the lack of such concentration has encouraged flexibility in Anglo-American firms. As financial figures of profitability indicate in the next section, British firms representing the Anglo-American system of ownership outside industrial and government circles are proving to be more profitable companies.

Table 4: Aggregate Share-Ownership of Listed Companies in France (%)
Source: Centre for European Policy Studies

	1977	1992
Banks/Insurers	24	23
Private Investors	41	34
Foreign Investors	12	20
Industry	20	21
Government	3	2

d. Convergence

With the goal of maintaining control or influence over national armaments producers, whether for national security or prestige reasons, governments viewed concentrated ownership through direct state ownership as the means to the end. Even after privatization of state-owned enterprises, influence and stability were maintained through concentrated industrial ownership. As globalization has gradually pushed Western Europe towards consolidation, however, the continent's corporations have slowly evolved away from industrial ownership. In recent years, initiatives proposed by

both international (OECD) and national bodies have sought to reform corporate governance systems, and in the process, have encouraged nations to seek common ground. In its 2000 European Business Survey, *The Economist* noted that while Europe's corporate governance systems remain diverse, "its markets have moved much closer to the American model over the past couple of years, albeit at different speeds."¹¹⁴

On the aggregate level, institutional investors such as pension and mutual funds have arrived and will now play a growing role in terms of both capitalization and ownership. Western Europe is now moving toward "greater reliance on funded schemes in the financing of retirement." Currently, British and American pension funds account for 72 percent of total pension fund assets in the West and have looked beyond their national borders for investment opportunities.¹¹⁵ As their influence develops with increased shareholdings, pension funds will engage in more active shareholding as dictated by United States law¹¹⁶ and British suggested codes of conduct. The inevitable result of this push by institutional investors toward dispersed ownership by proxy is the altering of continental European corporate governance along the lines of the Anglo-American model.¹¹⁷

3. Corporate Performance

In a statistically ideal world, a direct connection between a nation's corporate governance system and the performance of defense firms in that country could be seen. The fact of the matter however, is that a corporate governance system with high or low

¹¹⁴ "Lean, Mean, European," European Business Survey, *The Economist*, 29 April-5 May 2000, 6.

¹¹⁵ Lannoo, v.

¹¹⁶ U.S. pension funds are required by the Employee Retirement Income Security Act (ERISA) to "actively monitor investments and communicate with corporate management." (Lannoo, 31-32).

ownership concentration does not dictate the success of an individual company. As a result, a direct comparison of defense firms to their counterparts in differing nations is impossible, particularly when other factors such as differing accounting standards and market foci are taken into account. Examining the financial figures of several Western European defense firms does however, indicate an interesting trend. The figures of operating profit/income and profit margin for British Aerospace, Aerospatiale Matra, Daimler-Benz Aerospace (DaimlerChrysler), GEC-Marconi, and Thomson-CSF (before the 1999 round of consolidation) offer insight into the role and influence of government in the financial success of defense firms.

As has been established, the influence of government is a particularly distinguishing feature of differing corporate governance systems. A number of Western European governments still maintain influence over their national armaments production through ownership of stock and direct representation on corporate boards of directors. Other nations, in contrast, have removed themselves from the ownership role and assert influence and control solely through procurement, industry regulation, and control of exports. The financial figures from defense firms in the nations show that these companies display the general characteristics of companies within their respective corporate governance systems. Companies with no direct government control (that is, state ownership) place profit maximization ahead of other concerns. From this, it can be concluded that such systems (for example, the Anglo-American and German governance systems) will produce more profitable companies in the post-consolidation market. This fact, and the previously established American preference for equity purchases and joint

¹¹⁷ Lannoo, 31.

ventures with British companies, indicates that future transatlantic equity purchases and mergers on both the prime and sub-prime levels will involve companies with similar corporate properties as they share the same main goal of profit maximization. Though not necessarily affecting profit maximization, ownership concentration will also play an important role in dictating future equity investments. Anglo-American companies, deriving benefits from flexibility, will most likely seek partners with similar responsiveness.

a. Operating Profit/Income

The following figures were gathered from annual financial reports and company reports produced by Forecast International and the Teal Group and subsequently converted to U.S. dollars using annual foreign exchange rates calculated by the U.S. Federal Reserve. The first measure of the success of British, French, and German aerospace and defense electronics firms is operating profit/income. Operating profit or income is defined as profit before interest, excluding exceptional items. This measure was chosen based on the consistency of its definition from nation to nation. Corporations often report net income up front in their annual reports; however, this figure does not take into account differing tax systems in different nations.

Aerospace Firms

Table 5: British Aerospace (BAe)

US\$ Millions	1994	1995	1996	1997	1998
Defense	632.5	770.9	868.7	980.6	1057.4
Commercial Aerospace	-239.5	-186.8	-122.5	-32.8	19.9
Total	406.8	560.4	714.7	906.8	1057.4

Table 6: Aerospatiale

US\$ Millions	1994	1995	1996	1997	1998
Defense	5.8	83.3	40.2	-0.855	-1.2
Commercial Aerospace	64.1	185.7	168.0	194.0	-13.9
Total ¹¹⁸	30.6	129.1	143.6	182.4	69.3

Table 7: Daimler-Benz Aerospace (Dasa)

US\$ Millions	1994	1995	1996	1997	1998
Total	-287	-4695 ¹¹⁹	31.3	320.9	699.3

¹¹⁸ Aerospatiale total profits include operating profits/losses from helicopter sales by Eurocopter. With Eurocopter selling both civil and military aircraft but no specific figures indicating the division, profits were left out of the Defense and Commercial Aerospace entries but included in the total entries.

¹¹⁹ The Dasa entries represent a combination of official Dasa figures (96-98) and those from the Teal Group (94-95). In 1996, the Teal Group cited a loss of \$130 million and a profit of \$249 million in 1997. While it is difficult to ascertain the true figure due to inconsistencies in currency rates and other factors, Dasa has admitted that it suffered losses in 1995 in an attempt to bail out the failing Dutch aerospace firm, Fokker.

Defense Electronics Firms

Table 8: GEC-Marconi

US\$ Millions	1994	1995	1996	1997	1998
Total	406.8	334.0	479.1	593.6	692.8

Table 9: Thomson CSF

US\$ Millions	1994	1995	1996	1997	1998
Total	393.8	396.1	403.7	373.1	394.4

b. Profit Margin

While operating profit/income figures are important in distinguishing the annual financial success of aerospace and defense electronics firms in Britain, Germany, and France, such figures are not enough to establish a pattern concerning corporate governance systems and corporate performance. The next measure of profitability, profit margin, provides an indication of a company's efficiency using a simple formula.

$$\text{Net profit from operations} \div \text{Net sales} = \text{Profit Margin}$$

As with its previous use, operating profit was substituted for net profit to account for the difference in national tax systems.

Table 10: British Aerospace (BAe)

%	1994	1995	1996	1997	1998
Defense	9.0	11.4	10.4	9.4	10.0
Total	3.7	6.2	6.1	6.5	7.4

Table 11: Aerospatiale

%	1994	1995	1996	1997	1998
Defense	0.24	3.2	1.5	0.04	0.045
Total	0.35	1.3	1.4	1.9	0.75

Table 12: Daimler-Benz Aerospace

%	1994	1995	1996	1997	1998
Total	-2.7	-44.7	0.37	3.6	7.2

Table 13: GEC-Marconi

%	1994	1995	1996	1997	1998
Total	9.1	7.5	9.6	10.1	7.4

Table 14: Thomson CSF

%	1994	1995	1996	1997	1998
Total	6.0	5.5	5.7	5.7	5.7

Figure 3: Operational Profit/Income (Aerospace Total)

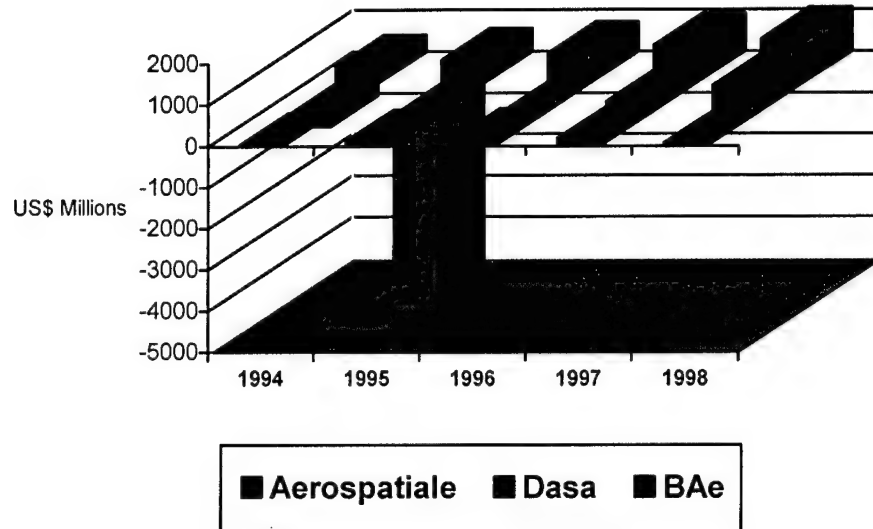


Figure 4: Operating Profit/Income (Defense Electronics Total)

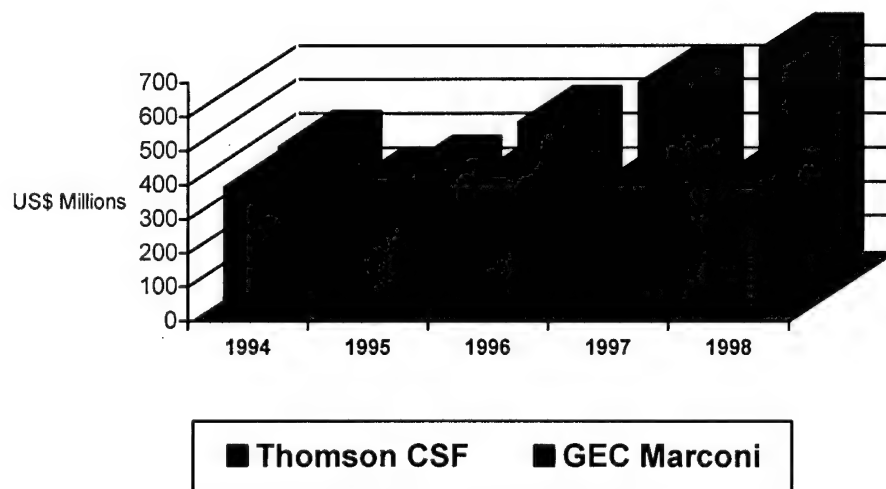


Figure 5: Profit Margin (Aerospace Total)

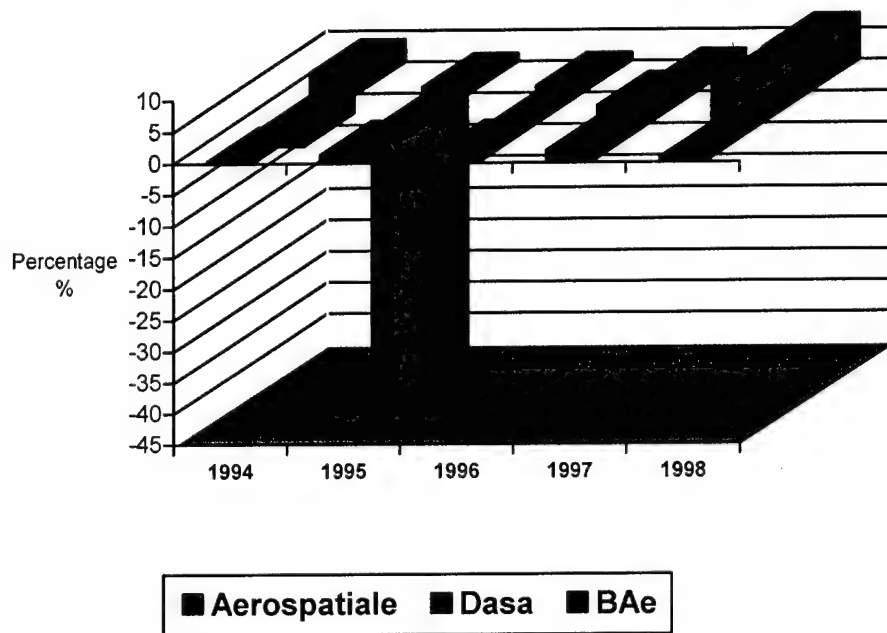
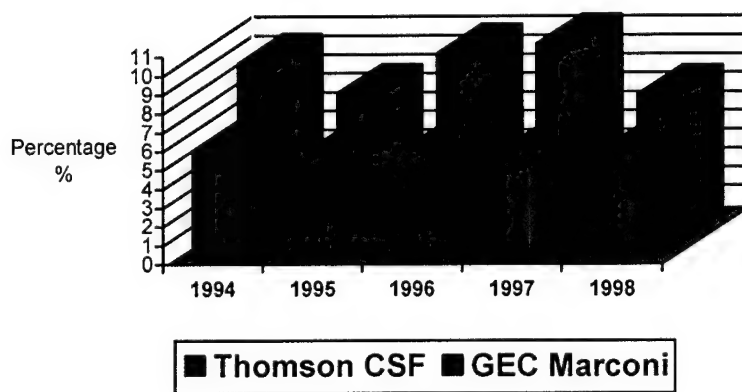


Figure 6: Profit Margin (Defense Electronics Total)



C. RECENT CONSOLIDATION EFFORTS

When journalists and industry analysts speak or write about the process of consolidation in both Europe and the United States, the marriage metaphor is often invoked to help explain the details of a merger. One British analyst even joked that good marriages are "made in heaven, not Europe."¹²⁰ Though repeated use has made the comparison somewhat trite, the emphasis on mergers being more than simply uniting two or more companies under a single board of directors remains true. A successful merger, like a successful marriage, requires that the involved firms restructure and not simply unite in name. The consolidation process in Western Europe is further complicated by a number of nuances that compose the unique government-industrial relationship. For industry, both the subtle and blatant aspects of restructuring a newly merged company and problems associated with the process are eventually displayed in the firm's annual report to stockholders. For both industry and government, access to domestic markets has become increasingly important. Defense firms must now penetrate other home markets through mergers while governments are faced with the growing antiquity of the national champion system. With the consolidation process picking up speed and momentum, states are also faced with the issue of declining competition in weapons procurement. Every sector of the European defense industry has been forced to address these issues. By examining the consolidation efforts in systems integration/aerospace, land systems, and defense electronics sectors, the difficulties involved with such issues while also strengthening the industrial pillar are more clearly demonstrated.

¹²⁰ Francis Tusa, "EADS/Alenia Tie-up . . . Best of Spouses?" Online, Available HTTP:

The restructuring of the global defense industry began in the United States during the last decade. American companies were faced with a declining U.S. defense budget and responded by both consolidating and restructuring within the national market. Western European defense firms have likewise begun the process of consolidation in response to the changing security atmosphere and resultant defense budgets. European industrial restructuring, however, has become entwined in the idea of globalization—intra-European and transatlantic mergers. The end of the Cold War has provided the catalyst for the current plans at consolidation, but such restructuring is not without precedent. Daimler-Benz Aerospace (Dasa), which recently became DaimlerChrysler Aerospace with the merger of the Daimler-Benz conglomerate and Chrysler Corporation,¹²¹ traces its origins back to the fusion of Messerschmidt, Ludwig Bölkow, Hamburger Flugzeugbau, Ernst Hrinkel, Focke-Wulf, Weser Flugzeugbau, and Rhein Flugzeugbau.¹²² This pattern of post-World War II mergers is also prevalent in Great Britain and France. Unlike past restructuring efforts, however, the new era of consolidation is also witnessing pan-European mergers with former foreign rivals. Today's mergers within the Western European defense industry are unparalleled in both their corporate and cultural scope.

<http://defence-data.com/current/page7113.htm> (8 May 2000).

¹²¹ The parent company of Dasa, DaimlerChrysler, itself represents a triumph of globalization and possibility of future transatlantic mergers.

¹²² Jane Davis Drown, Clifford Drown, and Kelly Campbell, eds., *A Single European Arms Industry?* (London: Brassey's Ltd.): 53.

1. Systems Integrators/Aerospace and Restructuring

The first major step toward European consolidation and restructuring came in January 1999. Industry analysts and government officials took their Christmas holiday expecting the negotiations between British Aerospace (BAe) and DaimlerChrysler Aerospace to be completed and the formation of the first major pan-European conglomerate to be announced in the new year. The Deutsche Presse-Agentur reported on 7 December 1998 that British Aerospace had confirmed that "it was at an advanced stage of talks over a merger with European partners" and that "analysts saw the statement as referring to a reported possible merger with DaimlerChrysler Aerospace (Dasa)."¹²³ Those outside of BAe and its new partner were shocked on 19 January 1999, however, when British Aerospace announced that it was merging not with Dasa but with GEC-Marconi Electronic Systems—the defense electronics division of Britain's General Electric Company. After approval by anti-trust officials in the United Kingdom and most recently, the U.S. Department of Defense in November 1999, the \$10 billion merger was completed.¹²⁴

With the merger blessed by the DoD and officially by the U.S. Department of Justice, the new company announced its new name amidst great fanfare at the Banqueting Hall in Whitehall—BAE Systems. The new moniker was touted as reflecting the company's new global status—no longer focused completely on aerospace and no longer a British firm. In fact, around 40 percent of the company's revenues come from non-aerospace sectors (that is, electronics, ordnance, and naval vessels), more than 80 percent

¹²³ "British Aerospace Says Merger Talks in 'Advanced' State," Deutsche Presse-Agentur, 7 December 1998, Online, Available: LEXIS-NEXIS Academic Universe (15 December 1998).

of the company's revenues are generated outside of Britain, and "more than one-third of its 100,000-odd employees work outside Britain."¹²⁵ BAE Systems' chairman, Sir Richard Evans declared, "we are immensely proud of our Britishness but as we are no longer a British based company . . . we believe that we have chosen a name that acknowledges our proud heritage and roots but at the same time is properly in tune with our global mix—it is time to move on."¹²⁶

In anticipation of its merger with GEC Marconi, British Aerospace began the process of restructuring in July 1999. To increase productivity, company managers launched a program to streamline manufacturing operations that included plant closures and employment reductions. Beginning with the closure of Royal Ordnance (ammunition division) facilities in Faldingworth and Bishopton and reductions in other manufacturing and support activities, the managers' plan called for a reduction of 1,400 employees.¹²⁷ Furthermore, Sir Richard declared that the company has carefully studied the problems encountered by Lockheed Martin during its merger. In particular, Evans believes that BAE Systems can avoid Lockheed's concentration "on gradual integration while losing sight of orders and projects at hand."¹²⁸ A sign that BAE Systems' managers were taking these lessons to heart was the quick appointment of a new unitary management team. The new company, according to chief executive John Weston, will draw upon the

¹²⁴ "British Aerospace Gets OK On Marconi Deal," *Los Angeles Times*, 23 November 1999, C4.

¹²⁵ Daniel Michaels, "British Aerospace's New Name and Structure May Mean Clearer Skies for Company's Stock," *The Wall Street Journal*, 29 November 1999: C2.

¹²⁶ "BAe, Marconi merge into BAE SYSTEMS," Defence Systems Daily, Defence Data Ltd., Online, Available HTTP: <http://defence-data.com/current/page5937.htm> (1 December 1999).

¹²⁷ Forecast International, *Defense & Aerospace Companies—Volume 2*, "British Aerospace plc," October 1999.

¹²⁸ "BAE Systems' Evans Vow Not to Repeat Lockheed's Mistakes," AFX Europe, 30 November 1999, Online, Available HTTP: <http://www.ft.com> (3 December 1999).

strengths of both firms. "The combination of MES's [Marconi Electronic Systems] cost management and financial control skills with BAe's large-scale project management and systems integration skills will produce significant benefits."¹²⁹ As with other Anglo-American companies, the true test of success will be BAE Systems' share price in the stock market.

After being spurned by British Aerospace, DaimlerChrysler Aerospace began looking for a new partner. Rumors quickly circulated about a possible transatlantic link-up with Northrop Grumman or a merger with the French defense electronics giant, Thomson-CSF. At the end of June, the chairman of Dasa, Manfred Bischoff, reached an agreement with Construcciones Aeronauticas S.A. (CASA) president Alberto Fernández Ferreras to merge the German and Spanish aerospace companies.¹³⁰ The culmination of Dr. Bischoff's consolidation dreams, however, did not arrive until 15 October 1999. The defense-industrial sector was once again rocked with the announcement of another major merger within the Western European defense industry. The heads of DaimlerChrysler Aerospace and Aerospatiale Matra officially merged their companies along with CASA into a giant European conglomerate, the European Aeronautical, Defense and Space Company (EADS). With combined revenues of \$22.9 billion, 96,000 employees¹³¹, and a combined stake of 80 percent in the Airbus Industrie consortium, EADS is poised to be a dominating power in civil aerospace and influential in the defense sector.¹³² The

¹²⁹ "BAE Systems," BAE Systems Company web page, Online, Available HTTP:

<http://www.baesystems.com/dynamic/d945812.htm> (30 November 1999).

¹³⁰ David Ing, "Dasa-CASA Merger Ends Single Industry Dream," *Jane's Defence Weekly*, 23 June 1999, 20.

¹³¹ "Casa Becomes EADS Founding Member," *Interavia*, December 1999, 45.

¹³² Daniel Michaels and Charles Goldsmith, "DASA, Aerospatiale Merger Forms Intra-European Aircraft, Defense Giant," *The Wall Street Journal*, 15 October 1999, Online, The Early Bird, Available HTTP:

success of the new multinational defense firm will depend in large part upon the ability of German, French, and Spanish executives to fully integrate and orient their respective firms' operations with a single coherent strategy. Even with a common language and national orientation, American defense companies have found the merger process to be fraught with difficulties. One European consultant observed that "the differences among the Europeans are visceral . . . not easily susceptible to logical discourse or negotiation, and are deeply coloured by emotion and issues of national identity."¹³³

Added to the cultural difficulties of merging the three national aerospace firms is a complex corporate structure that represents the interests of a variety of parties. One such party that insisted upon a shareholding was the French state. In past attempts at pan-European mergers with private sector firms, the French government required a significant stake in the new company. Until the EADS deal, those firms had refused to accept state ownership and control. The rationale behind DaimlerChrysler Aerospace's sudden change of heart can be traced to two advantageous arrangements secured by the Germans. First of all, Dasa's contribution to EADS will represent less than 40 percent of the company's structure, but it will have 50 percent of the company's holding.¹³⁴ Furthermore, DaimlerChrysler chairman Jürgen Schrempp was reportedly promised that the French government would stay out of management decisions. If it does not live up to this promise, Dasa has the option to back out of the deal within three years with

http://ca.dtic.mil/cgi-bin/ebird?doc_url=/Oct1999/e19991015dasa.htm (15 October 1999).

¹³³ Chris Crane, "Dealing with reality—the difficulties of European consolidation," Online, Available HTTP: <http://defence-data.com/features/fpage31.htm> (3 December 1999).

¹³⁴ Nicole Beauclair, Jean-Claude Bourbon, and Matthieu Quiet, "Another Piece in the Puzzle," *Interavia*, November 1999, 15.

“attractive buyout terms.”¹³⁵ With the addition of CASA to the mix, DaimlerChrysler Aerospace retains a 45.75 percent stake in the company, the French government holds 22.88 percent, Lagardère maintains a 16.93 percent stake, private French investors hold 5.95 percent, and the Spanish state holding company, Sepi, will retain a 8.5 percent holding (Figure 7).

While the issue of state ownership was one that had to be dealt with before the merger could proceed, other difficulties still remain to be overcome. The main purpose of any merger is to establish a stronger company through benefits such as greater economies of scale, increased research and development capabilities, new product lines, and in the European defense industry, greater access to the home markets of the merger partners. To gain these benefits in a smaller and more competitive market, however, a multinational defense firm must be willing to restructure and not simply consolidate. The empirical example of the American defense restructuring process during the 1990's has shown that the process requires partners whose divisions complement one another. Where overlap occurs, the firm's managers must be willing to consolidate and cut back personnel or production facilities if necessary. When Hughes Aircraft acquired General Dynamics' missile division in 1992, Hughes' management “launched an aggressive restructuring program that consolidated operations from five plants to one, reduced staff from 14,000 to 8,000, and increased capacity utilizations from 35 percent to 85 percent, effectively reducing unit costs by almost 40 percent, from \$520,000 to \$325,000.”¹³⁶

¹³⁵ Jim Hoagland, “A Global Riddle,” *The Washington Post* (National Weekly Edition), 1 November 1999, 5.

¹³⁶ John J. Dowdy, “Winners and Losers in the Arms Industry Downturn,” *Foreign Policy*, Summer 1997, 96-98.

British Aerospace likewise downsized in anticipation of its merger with GEC Marconi. Thus far, it remains to be seen whether the newly formed EADS management is willing to make such hard decisions. In a scathing critique of EADS in *Forbes* magazine, Howard Banks warned that EADS will not seek efficiency gains through plant closures or a reduced workforce, for EADS "is as much a political beast as a commercial enterprise. Efficiency gains aren't the objective; saving jobs is."¹³⁷

One method EADS has indicated will help it restructure is the pursuit of synergies. The announcement of the last Western European holdout in the aerospace sector, Italy's Alenia Aerospace, to form a joint venture with EADS seems to reinforce the potential of synergy. The proposed joint venture firm, the European Military Aircraft Company (EMAC), is to be split evenly between EADS and Alenia and will allow both companies to consolidate their defense-related skills. A closer examination of the companies' projects, however, shows a potential for overlap problems that could endanger consolidation benefits. With the addition of CASA to the EADS fold, the pan-European firm gained "a strong light transport aircraft product line in the CN-235/295." The aircraft's direct competitor, the C-27J, however, is produced by the newest EADS partner, Alenia.¹³⁸ Alenia's light transport aircraft division is not included in the joint venture company, so the EADS partners will continue to compete in this important sector. Another conflict also arises in the trainer aircraft sector. Dasa began developing the Mako jet trainer before the EADS merger was proposed. Alenia, in conjunction with Russia's Yakolev, has committed to produce the Ae-131 future light advanced jet

¹³⁷ Howard Banks, "Walls Around Europe," *Forbes*, 15 May 2000, 158.

¹³⁸ Tusa.

trainer.¹³⁹ Which aircraft will survive has yet to be decided, however, internal conflict over such product line overlaps must be resolved for EADS to achieve the synergies it has advertised.

¹³⁹ Tusa.

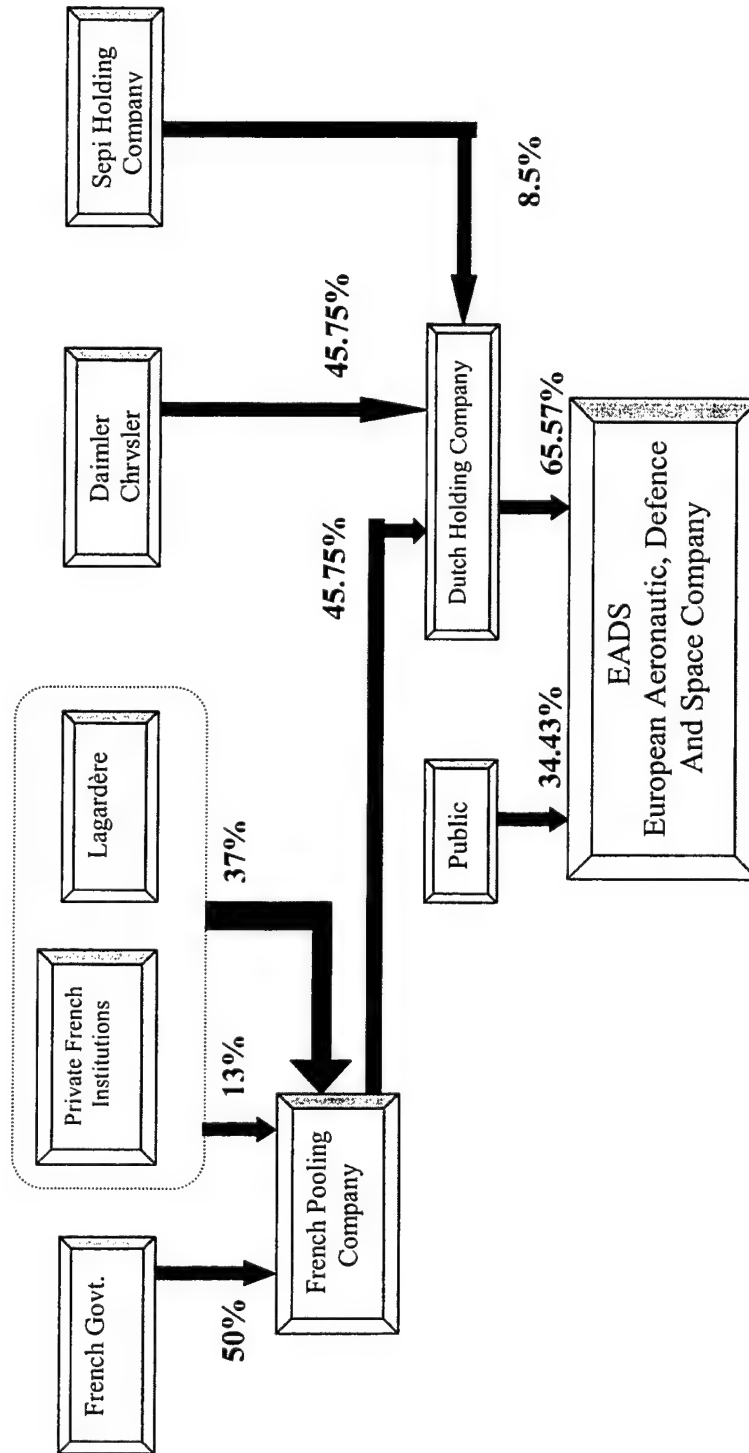


Figure 7: EADS Shareholder Structure

Source: *Interavia*, December 1999 and Defence Data

2. Land Systems and Domestic Markets

While the BAE Systems and EADS mergers have garnered much of the attention surrounding Western European defense industry consolidation, a number of smaller but still important restructuring deals have been in the works. In the aerospace sector, BAE Systems made a £269 million equity investment in Saab.¹⁴⁰ Knowing that it would never win a fighter contract in a country with a domestically produced aircraft, BAE acquired a 35 percent stake in Sweden's Saab. This strategy has seen its greatest success, however, in the land systems sector, a sector notoriously dominated by national champions.¹⁴¹ In a presentation before European industry and government officials in January 2000, Michael Abels, a partner in the law, accounting, and tax consultancy firm of Oppenhoff & Rädler, outlined three consolidation opportunities for European defense firms:

- 1.) Merge with competitor[s] to neutralize and to become a domestic firm (e.g., Dasa, CASA, and Aerospatiale Matra);
- 2.) Become the sole domestic supplier in as many markets/states as possible; and
- 3.) Eliminate or neutralize one's own domestic competition.¹⁴²

To gain entrance into the Scandinavian market and become a domestic supplier, British land systems producer Alvis purchased Finland's Hägglunds in 1997. The next year, the savvy Alvis managers decided to neutralize their domestic competition as well

¹⁴⁰ Forecast International, "British Aerospace plc."

¹⁴¹ According to Dieter Hanel, Head of Marketing for MaK System Gesellschaft, Europe still supports thirty-seven armored fighting vehicle producers. Armored vehicles and the main battle tank (MBT) in particular, remain national symbols whose production is protected by governments.

¹⁴² Michael Abels, Partner at Oppenhoff & Rädler, "Who Decides the Reshaping of the European Defence Industry," Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

by acquiring a majority stake in GKN Defence.¹⁴³ In Germany, domestic market consolidation has been particularly robust. Krauss-Maffei Wehrtechnik and Wegmann merged to form Krauss-Maffei Wegmann in 1999. Rheinmetall DeTec likewise strengthened its domestic market share by purchasing Henschel Wehrtechnik and KUKA Wehrtechnik in 2000.¹⁴⁴ Where mergers have not been possible or desired in the land systems sector, cooperative teams have been established. Such cooperative efforts have not only created economic, production, and R&D benefits, but they have also given land systems firms access to outside markets. Currently, the two largest international projects, the Multi-Role Armored Vehicle (MRAV) and TRACER, involve a number of Western European and American producers.¹⁴⁵

3. Defense Electronics and Competition

Unlike either the aerospace or land systems sectors, the defense electronics sector has not always garnered the same national feelings. Though it remains a vital component of a healthy defense industry, the sector has largely been the purview of prime contractor divisions (for example, General Electric's Marconi division) or second tier defense companies. In recent years, however, one titan has come to dominate the sector. The most recently announced mergers, both initiated by this company, are significant because of the nationalities of the involved parties. In January 2000, Thomson-CSF chairman Denis Ranque announced that the French electronics giant had purchased Britain's Racal Electronics for \$2.18 billion. The purchase will double Thomson's British revenues from

¹⁴³ Abels.

¹⁴⁴ Dieter Hanel, Head of Marketing for MaK System Gesellschaft, "Reshaping European Land Systems," Reshaping Business Strategies in the European Defence Industry Conference, 24 January 2000, The Park Lane Hotel, London.

\$1 billion to \$2 billion and make Thomson the third largest European defense firm after BAE Systems and EADS.¹⁴⁶ In May 2000, Thomson increased its presence in the British market further by acquiring the remaining 10 percent of Pilkington Optronics. Thomson had previously purchased 90 percent of the joint venture electro-optical company from Pilkington plc in March 1998.¹⁴⁷

The purchase of a medium-sized electronics company and small joint venture firm would normally not be particularly interesting. The apparent approval by the British government of a well-established British manufacturer by a French corporation, however, is significant. Ranque and Racal chairman Ernest Harrison acknowledged that the deal had received the approval of the British Ministry of Defence. From a MoD perspective, "Thomson's emergence as a strong counter-weight to BAE Systems on the UK defence market could only be healthy from a competition standpoint."¹⁴⁸ While consolidation is generally viewed as a positive development for the Western European defense industry, government officials remain concerned that competition will disappear in the midst of a merger frenzy. The American consolidation process came to an abrupt halt with the DoD denial of Lockheed Martin's proposed merger with Northrop Grumman on the basis of maintaining competition within the tactical aircraft market. With a similarly strong tradition of competition for military contracts firmly established in the United Kingdom, defense officials are particularly pleased with the entrance of a second major defense

¹⁴⁵ Hanel.

¹⁴⁶ J. A. C. Lewis, "Thomson Unveils Bid For Racal and US Market," *Jane's Defence Weekly*, 19 January 2000, 25.

¹⁴⁷ "Thomson-CSF Takes Full Ownership of Pilkington Optronics," *Defence Systems Daily*, 12 May 2000, Online, Available HTTP: <http://defence-data.com/current/page7186.htm> (12 May 2000).

¹⁴⁸ Lewis, 25.

electronics contender, even if that rival is a French firm. As mergers and equity investments continue in the coming years, competition, or lack thereof, will become a serious issue in Western Europe as it has in the United States. With the power to accept or deny defense industry agreements, national governments will exercise great power in order to preserve procurement choice. Industry executives will undoubtedly have to take this into account before proceeding with future consolidation efforts.

D. OBSTACLES TO INDUSTRIAL RESTRUCTURING

While Western Europe has in large part embraced the consolidation of its defense industry, acceptance of the necessary restructuring efforts remains uncertain. In the Anglo-American corporate environment, company officials must continually deal with employment issues and labor unions. Government interference in the employment structure, however, remains limited in these nations. Likewise, the power of labor unions is restricted. With socialist legislators seeking to rebuild the national economy and labor unions wielding greater power, the focus on employment and labor issues presents a serious obstacle to restructuring efforts within the continental defense industry. The last vestiges of national armaments programs further inhibit such efforts at restructuring. Though such obstacles are culturally entrenched in nations such as France and Germany, the means to overcome them have recently arrived.

1. Focus on Employment

The unique aspects of national corporate governance systems in France and Germany are seen not only in issues such as ownership concentration but also in the focus placed on employment within the national economy. For Europeans in general and the French in particular, the issue of employment is one of great importance. In 1996, the

unemployment rate in France rose to 12.5 percent. In November 1998, the OECD reported a decrease to 11.5 percent, however the decrease was tempered by figures indicating that long-term unemployment continues to grow and “now stands at over 40 per cent.”¹⁴⁹ When faced with such an alarming unemployment rate, the French state’s natural inclination has been to interfere in the operation of businesses. As the decline in employment began in the early 1990’s, the French government encouraged companies to reduce working hours in order produce more jobs. Such efforts would culminate in passage of the Law of June 1998 that decreased weekly work hours from 39 hours to 35 hours.¹⁵⁰ As OECD economists have indicated, however,

To establish a virtuous circle of working time reduction and job creation without any marked deterioration in competitiveness and public finances, substantial scope for productivity gains must exist and be tapped and the social partners [unions] must agree on a marked moderation of wage developments.¹⁵¹

Within the French defense industry, revenues and productivity growth have been unable to promote the “virtuous circle”. Since 1990, “domestic revenues for French defense firms have fallen some 35 percent” and are now “equivalent to 63 percent of their total sales.” Faced with such figures, the firms “have no choice but to enter the global marketplace and form international partnerships to survive.”¹⁵² Productivity growth for French aerospace firms during the 1990’s was 2.2 percent. Such growth is overshadowed, however, by growth rates of 8.8 percent in the United States and 6.9

¹⁴⁹ *OECD Economic Surveys: France 1998-1999*, (Paris: Organisation for Economic Co-Operation and Development, 1999), 37.

¹⁵⁰ *OECD Economic Surveys: France 1998-1999*, 14.

¹⁵¹ *OECD Economic Surveys: France 1998-1999*, 65.

percent in the United Kingdom.¹⁵³ For the French defense industry, the reduction in the weekly working hours has not created jobs but instead, placed many in danger. French companies such as Thomson-CSF and Dassault have proven themselves to be global competitors. Such companies must, however, have the freedom to adapt to the changing European and global market if they are to continue to succeed.

Though France has similarly strong labor protection laws, the German labor system has come to symbolize the strength of the European labor movement. With wages more than \$10 more per hour than American salaries¹⁵⁴ and representation on corporate supervisory boards enshrined in the national corporate governance system, German labor plays a dominant role in industrial and economic affairs. As restructuring efforts begin to pick up speed in Germany, they will undoubtedly run into opposition from unions. Within the German aerospace sector, productivity growth declined dramatically from 1991 to 1995 while an opposite trend was seen in the United Kingdom. While German firms managed to reduce "employment significantly, the reduction was not sufficient to counteract the reduction in sales until 1996."¹⁵⁵ As productivity growth rates rose dramatically in the United States and Britain, the Germans achieved a disappointing 1.7 percent growth rate, below the 2.4 percent rate for the rest of Europe (minus France and the UK).¹⁵⁶ If German and French defense firms seek to compete in the global arms market, they will need to cut back excess employment and infrastructure.

¹⁵² "Law Stifles French Industry," *Defense News*, 10 April 2000, 14.

¹⁵³ John Dowdy, "US Industry Leading the Pack in Productivity Battle," *Interavia*, July/August 1999, 15.

¹⁵⁴ Forecast International, Foreign Military Markets, NATO and Europe, "Germany (Analysis)," November 1999, 4.

¹⁵⁵ Dowdy, 15.

¹⁵⁶ Dowdy, 15.

The will and power of unions to block such efforts could prove to be major obstacles to industrial restructuring. Surprisingly, the means to overcome the labor obstacle could come from the labor unions themselves. In its 2000 European Business Survey, *The Economist* remarked that unions have become more tolerant of European restructuring efforts. Peter Coldrick, a senior official at the European Trade Union Confederation, went so far as to declare, “We understand that things are changing and that you can’t regulate today’s market into submission.”¹⁵⁷

2. Article 296

While the process of restructuring began in earnest with the merger of British Aerospace and GEC Marconi in January 1999, it remains incomplete. Many European defense companies remain protected by their nations’ support for their “national champions.” As with some officials in the U.S. government, some within European governments still cling to the traditional belief that the ability to produce weapons must not be ceded to foreigners. This belief is backed up by subsidies and protectionist legislation for national firms.¹⁵⁸ Such legislation, despite the European Union’s common market, is legal under Article 296 of the founding Treaty of Rome.¹⁵⁹ The article states:

¹⁵⁷ “Unions’ unions,” European Business Survey, *The Economist*, 29 April 2000, 16.

¹⁵⁸ “Markets and Maginot Lines,” *The Economist*, 28 October 1995, 23.

¹⁵⁹ Originally Article 223 of the Treaty of Rome, the numeration changed following the Amsterdam Treaty without any changes in content or legal aspects.

1. The provisions of this Treaty shall not preclude the application of the following rules:

(a) No Member State shall be obliged to supply information the disclosure of which it considers contrary to the essential interests of its security;

(b) Any Member State may take such measures as it considers necessary for the protection of the essential interests of its security which are connected with the production of or trade in arms, munitions and war material; such measures shall not adversely affect the conditions of competition in the common market regarding products which are not intended for specifically military purposes.

2. The Council may, acting unanimously on a proposal from the Commission, make changes to the list, which it drew up on 15 April 1958, of the products to which the provisions of paragraph 1(b) apply.¹⁶⁰

While Article 296 is supported strongly by the smaller European Union members such as Greece and Portugal, it has caused frustration for the largest defense firms. Sir Geoffrey Pattie, former Chairman and Marketing Director of GEC Marconi, reiterated industry frustrations with national policies at a Euroforum seminar when he announced, “we have companies in Europe that are close to world-class status but can’t get there because a government next door blocks its expansion.”¹⁶¹ Article 296 has likewise inhibited the European Commission’s Directorate General Enterprise, the division responsible for investigating potential anti-competitive practices. “One of the Commission’s main stated objectives is to extend the application of the Single Market to

¹⁶⁰ “Consolidated Version of the Treaty Establishing the European Community,” European Union, Online, Available HTTP: http://europa.eu.int/eur-lex/en/treaties/dat/ec_cons_treaty_en.pdf (14 May 2000)

¹⁶¹ “Highlights of the Debates 96-98,” Euroforum Website, Online, Available HTTP: <http://www.forum-europe.com> (27 March 1999).

the defence sector,” but the EU continues to be thwarted by “the resistance of many states to cede to the Commission’s competence in defence industrial issues”¹⁶²

The EU Directorate General Enterprise has seized upon the issue of industrial base integration and intra-community export controls. According to Mr. Costas Andropoulos, Head of Unit in the DG Enterprise, the European Commission has slowly made progress in its efforts to retire Article 296. Having placed the defense industry and intra-community transfers on the industrial and political agendas, an achievement that was “far from self-evident just a few years ago,” the European Commission is currently working on a legislative proposal to harmonize rules governing arms transfers within the European Union. The Commission’s proposal calls for a “global licence system” that “would insure that transfers could take place between the designated companies without any additional control either in the country of origin or the country of destination.”¹⁶³ The Global Licence System is perhaps the most dramatic aspect of the European Commission’s fourteen-point Action Plan for defense industry integration within the European Union. The plan’s departure from traditional sovereignty has created opposition from nations that seek to protect their national manufacturers. French defense officials have indicated that they would like to see common European Union guidelines for intra-community transfer. A compromise that would maintain Article 296 as a symbol of national sovereignty but with harmonized application of the article throughout

¹⁶² Vlachos.

¹⁶³ Costas Andropoulos, Head of Unit, Directorate General Enterprise, European Commission, “EC Initiatives to Maintain Competitive European Defence Industries,” Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

the community is the desired end result.¹⁶⁴ A system that enforces free movement of defense goods within the European Union while also advocating protection of national markets, however, is inherently contradictory. With the confusing nature of current negotiations, a repeal or alteration of Article 296 seems highly unlikely in the near future.

¹⁶⁴ Major Patrick Lefort (DGA), Assistant Defense Cooperation Attaché, Embassy of France, Personal Interview, 19 May 2000.

THIS PAGE INTENTIONALLY LEFT BLANK

III. PROSPECTS FOR TRANSATLANTIC COOPERATION

A. GLOBALIZATION OF THE DEFENSE INDUSTRY

In an attempt to answer many of the questions concerning globalization, its impact on U.S. security, and solutions to cooperative obstacles, the Department of Defense formed three committees to examine the key issues of globalization and commercialization and the reforms necessitated by both. One of the committees, the Strategic Studies Group IV, a collection of senior military officers, was tasked with an assignment entitled, "The Impact of Globalization and Streamlined Business Practices on National Security." Captain Paul Ryan, a member of the Secretary of Defense's Strategic Studies Group, stated that globalization "raises significant security concerns (protection of classified US military specs/information)" and "could lead to proliferation of advanced technology."¹⁶⁵ Such concerns have driven the SDSSG study in the face of European calls for an immediate DoD stance on the globalization within the defense industry. Given the problems created by the current system, finding the correct balance between desired reforms and necessary security measures has taken on an increased importance and is essential to gain the benefits of globalization, including transatlantic cooperative efforts and mergers.

Despite such misgivings, the United States must be prepared to work with all of its NATO allies through a regulated security system that accepts the facts of globalization and its impacts on transatlantic cooperation. With the acceptance of the Defense Science Board's conclusions concerning globalization and acceptance of security reforms by both

the Defense and State Departments, progress toward increased transatlantic cooperation and mergers can be made. Unfortunately, the security cultures within the two departments along with some in the U.S. Congress will oppose such reforms. “Left unattended, the existing regulatory structures will offer a robust set of barriers to globalization,”¹⁶⁶ and the transatlantic defense-industrial relationship will be severely weakened. Though the process will be difficult, the Department of Defense must get its house in order for cooperative projects and transatlantic mergers to be possible.

While the Department of Defense recognized the effects of globalization early on, the DoD did not take true action until February 2000. On 5 February 2000, U.S. Secretary of Defense William Cohen and British Secretary of State for Defence Geoffrey Hoon signed a framework agreement that represents a groundbreaking attempt to harmonize U.S. and U.K. policy on the issues of military requirements, research and development, acquisition procedures, supply security, export procedures, industrial security, corporate governance and ownership, technical information, and promotion of defense trade. The agreement, officially entitled, the “Declaration of Principles for Defense Equipment and Industrial Cooperation” (DoP), capitalized on the already well-established “special relationship” between the United States and the United Kingdom. For the United States, the DoP represents an opportunity to formulate a “common understanding, a common philosophy of defense industrial conduct” with a trusted ally.¹⁶⁷ For the British, the Declaration of Principles is a means to finally level the

¹⁶⁵ CAPT Paul Ryan, E-mail to the author, 4 March 1999.

¹⁶⁶ Clark & Hitchens, 60.

¹⁶⁷ Telephone Interview with Robert Bruce, Director Armaments Cooperation Atlantic, Office of the Under Secretary of Defense Acquisition, Technology, and Logistics, 4 May 2000.

playing field of defense competition in the United States. In the opening passage of the DoP, the "intention that U.K. industry doing business in the United States will be treated no less favorably than U.S. industry doing business in the United Kingdom," is emphasized.¹⁶⁸

Mr. Steve McCarthy, Defence Supply Attaché at the British Embassy in Washington D.C. and the only British official to attend all DoP negotiation sessions, wrote a short document to summarize the recent agreement. According to Mr. McCarthy, the key points of the DoP include:

- **Requirements:** The two Defence departments commit to seek better means to harmonise military requirements, using existing fora wherever practicable. This is intended to boost efforts within NATO and other arenas to identify potential co-operative programmes at the earliest stages, before thinking has hardened.
- **Research & Development:** We reconfirm our intention to identify projects at an early stage for enhanced co-operative research, development, production and procurement. The UK/US defence research relationship is already extensive and is of significant benefit to both sides.
- **Acquisition Procedures:** Work is to be done on the possibility of harmonising procedures for defence materiel acquisition. When co-operative programmes have been established, differing US and UK acquisition practices can lead to problems. The relationship of the UK's Smart Procurement initiative and the DoD's Acquisition Reform process is also relevant.
- **Security of Supply:** The two nations will seek to establish means of achieving assurance of supply for defence materiel for both of our nations, including where appropriate mechanisms that might be legally binding.
- **Export Procedures:** The DoD and MoD will explore means to achieve greater transparency and efficiency in our national defence export procedures, in particularly looking to simplify procedures for the export of defence items between ourselves, to establish lists of acceptable export destinations for jointly developed equipment, to implement regulations covering exports to third parties in a spirit of co-operation and to pursue measures to harmonise conventional arms export policies as far as possible. A high-level council will be established to pursue the accomplishment of these measures.

¹⁶⁸ "Declaration of Principles for Defense Equipment and Industrial Cooperation," *Winning Defence Business in the United States*, British Defence Staff (Washington), Defence Supply Office, CD-ROM.

- **Industrial Security:** The MoD and DoD will pursue more efficient arrangements for industrial security committing to try to avoid placing unnecessary restrictions on the movement of staff, information or materiel between the UK and the US and between our industries. Practical changes such as expedited transmission of classified information; reduced administrative requirements and streamlined visit approval processes will be addressed in order to lessen the administrative burdens placed on UK and US companies through necessary security restrictions.
- **Ownership and Corporate Governance:** The DoP commits defence ministries to encouraging the freest possible cross-border investment in defence-related industry. The DoP commits the Defence Departments not to impose unreasonable or unnecessary security restrictions on corporate governance while considering the security implications of any proposed international merger or acquisition.
- **Technical Information:** The two sides will explore means of improving arrangements for the use and handling of technical information between them and between their industries and to seek to optimize the exploitation for defence of technology investments. Arrangements will be established to facilitate the efficient operation of UK and US companies doing business in the other nation by improving the arrangements for disclosure, transfer and use of technical information.
- **Promoting Defence Trade:** The DoD and the MoD will endeavor, on a reciprocal basis, to diminish legislative and regulatory impediments to optimising market competition and to explore means to eliminate laws, regulations, practices and policies that require or favour national industrial participation in defence acquisition. They will work to revise acquisition practices in order to remove impediments to efficient global market operations and to support international market access for each other's companies. They agree to give full consideration to all qualified sources in each other's companies.¹⁶⁹

B. AMERICAN OBSTACLES TO COOPERATION

Since General John "Black Jack" Pershing sailed for France with the American Expeditionary Force in 1918, the United States has been intimately involved in European affairs. Following World War II, the U.S. solidified its involvement by helping to establish the North Atlantic Treaty Organization in 1949. NATO has successfully carried out its main mission since 1949: "Keep the Americans in, the Russians out, and the

¹⁶⁹ Steve McCarthy, Attaché Defence Supply, "The UK/US 'Declaration of Principles': Key Points."

Germans down.”¹⁷⁰ Through initiatives such as the European Security and Defense Identity (ESDI) within NATO and the Common Foreign and Security Policy (CFSP) as the central European Union policy to address common European security issues, Europe has sought to extend its security role and to escape complete reliance upon U.S. military power. While it is safe to assume that the United States will remain actively involved in European security, the best time to ensure that European security aspirations remain “separable but not separate”¹⁷¹ is at their inception.

An essential component of the transatlantic relationship now and in the future will be the defense-industrial base. As the recent mergers have shown, Western European governments and industry executives are in the early stages of building the industrial component of a newly independent European defense capability. In recognition of the importance of the defense-industrial link, U.S. Department of Defense officials such as former Deputy Secretary John Hamre and Under Secretary Jacques Gansler have sought to consummate the current relationship through more collaborative efforts and even transatlantic mergers with American prime contractors. For the past several years, DoD and European officials have viewed consolidation as the best vehicle to bring the European industry up to a level near that of the newly restructured U.S. firms. With the overall goal of increasing Western European military capabilities, the U.S. Department of Defense openly encouraged consolidation in the Western European arms industry. In a 1998 speech at the 25th International NATO Workshop on Political-Military Decision

¹⁷⁰ Lord Ismay, NATO's first Secretary General, is often credited with this personal motto.

¹⁷¹ The phrase “separable but not separate” was first used in a North Atlantic Conference communiqué announcing the decision to formulate Combined Joint Task Forces at the January 1994 NATO summit.

Making in Vienna, Under Secretary Gansler noted, "consolidation will certainly increase European firms' competitiveness and capacity for independent action."¹⁷²

Many European officials similarly saw consolidation as a means to ensure a competitive global market. They felt, however, that the U.S. vision, particularly Secretary Hamre's, foresaw stronger U.S. primes acquiring their weaker European counterparts. Consolidation, in the minds of Western European industrialists and government officials, could help ensure that any transatlantic mergers would involve equal partners. Despite differing motives for encouraging consolidation, the end goal of transatlantic mergers has remained a distinct possibility. The Department of Defense has remained supportive of consolidation that will lead to eventual mergers with U.S. firms, but it has not ensured that obstacles to transatlantic cooperation and mergers are removed.

In September 1998, John Weston, chief executive of British Aerospace, alluded to such obstacles when he declared that "the U.S. link is essential, but the timing for that link will be dictated by the point that the U.S. government and the U.S. Defense Department feels comfortable dealing with an international contractor"¹⁷³ The point of comfort for the Department of Defense in large part hinges on a perceived threat to security posed by foreign defense companies. As a result, industrial security, along with foreign investment concerns and export policies, remains a great concern of the United States and the chief obstacle to transatlantic cooperation and mergers. The proper

David S. Yost, *NATO Transformed*, (Washington, D.C.: United States Institute of Peace Press, 1998), 201-202.

¹⁷² Bryan Bender, "Europe Urged to Follow US Lead on Consolidation," *Jane's Defence Weekly*, 1 July 1998, 22.

¹⁷³ Vago Muradian, "Weston: U.S.-Euro Defense Mergers Await Clear U.S. Policy," *Defense Daily*, 30 September 1998, 1, Online, Available: LEXIS-NEXIS Academic Universe (28 February 1999).

response to such concerns should be a carefully devised defense trade system that protects U.S. interests while also encouraging transatlantic cooperation. The actual result, however, has been the construction of administrative and legislative barriers.

1. Foreign Investment in the U.S. Defense Market

Foreign investment in general has been the subject of both praise and sharp criticism in the United States. In the U.S. defense industry, a more neutral but cautious attitude has prevailed. As has been established, the unique nature of the industry's clientele and products require greater government regulation of the industry in all nations. Investment by foreign companies within the American defense-industrial base, as a consequence, requires careful scrutiny by federal regulatory agencies. Section 721 of the 1988 Defense Production Act, also known as the Exon-Florio Act, gives authority to the Committee on Foreign Investment in the United States (CFIUS) to investigate the national security repercussions of mergers with or acquisitions of U.S. companies performing defense related work by foreign firms.¹⁷⁴

Though it is not mandatory for a foreign firm to notify CFIUS of a potential investment, the government has the right to invoke divestment or other penalties on a company that was not properly vetted under the national security review process. If notice is given to CFIUS, the committee has thirty days to review the national security implications of the proposed deal. If concerns are raised during the initial review, the committee will conduct a forty-five day investigation followed by a recommendation as

¹⁷⁴ C. Christopher Griner, Christopher R. Brewster, & Farhad Jalinous, "The Exon-Florio Process—Review of Acquisitions and Investments in the United States by Foreign Investors," Kaye, Scholer, Fierman, Hays, & Handler LLP Memorandum, Prepared for the British Defence Staff (Washington), March 2000, CD-ROM.

to the acceptance or denial of the investment to the President. According to a memorandum prepared for the British Defence Supply Office by the Kaye, Scholer, Fierman, Hays, & Handler consultancy firm, in the hundreds of reviews CFIUS has handled since 1988, few have required the full investigation and only one acquisition has been blocked.¹⁷⁵

Despite the established protocol for CFIUS reviews and a history of approvals, the foreign investment review system could create problems if future merger or acquisition requests rise above the level of third and second-tier defense firms. In its guide to U.S. export controls, the consultancy firm of Holland & Knight advises British corporations, "while small non-defence acquisitions may proceed quickly, large acquisitions, particularly in the defence sector will take considerably more time."¹⁷⁶ To complicate matters further, the Defense Science Board noted in its globalization study, "in some cases, when one or more agencies participating in the CFIUS review are unable to complete their review, an investigation is often undertaken. The entire process can take 90 days to complete." In a business atmosphere where currency value is in a constant state of flux and timing can be a key determining factor in investments, a three-month delay could strangle future transatlantic equity investments, acquisitions, or mergers.

Past attempts at foreign investment in the U.S. defense industry have remained fairly modest. As the new Western European defense giants seek a greater presence in

¹⁷⁵ Griner, et al.

¹⁷⁶ Ronald A. Oleynik and Jonathon Epstein, Holland & Knight LLP, "Winning Defence Business in the United States: A Guide to U.S. Export Controls," Prepared for the British Defence Staff (Washington), March 2000, CD-ROM, 39-40.

the American arms market, however, equity investments in or outright acquisition of large U.S. contractors could arise. Whether the issue is such investments, future government-sponsored defense projects, or arms exports, the question of with whom to cooperate arises. While still at the Pentagon, Deputy Secretary Hamre acknowledged that the DoD "plans to classify international mergers as preferred, restricted, or forbidden."¹⁷⁷ Hamre suggested that Canada, Norway, Australia, the Netherlands, and the United Kingdom were on the preferred list while Russia and China could be found on the forbidden list. Perhaps the most significant aspect of the listings was the absence of Germany and France from the preferred list.¹⁷⁸ Past concerns of their export to third nations is often given as rationale. Given such a public announcement of potential defense-industrial pariahs, some analysts have questioned the status of preferred nationality companies with ties to restricted firms.¹⁷⁹ Both British Aerospace and GEC Marconi are involved in joint ventures with French companies. Nick Cunningham, an analyst with Saloman Smith Barney, summed up many questions when he asked, "Is there an acceptable percentage of Frenchness, or are these companies already condemned?"¹⁸⁰ The situation is further complicated by DaimlerChrysler's status as a truly transatlantic company. European industry and government officials insist that the official tiered policy has been revoked. Lack of an "official" policy, however, does not remove personal prejudice. As Richard Perle, now an advisor to the probable GOP-presidential candidate George W. Bush, told a German DaimlerChrysler executive, "You

¹⁷⁷ Stan Crock, Gail Edmondson, and Heidi Dawley, "The Pentagon Has a Little Transatlantic Merger List: It May O.K. Defense Deals—With a Favored Few," *Business Week* (Int'l Edition), 22 March 1999.

¹⁷⁸ Crock, et al.

¹⁷⁹ Crock, et al.

have thrown your lot in with the French, and to be perfectly blunt about it, we don't trust the French. I don't trust them to do deals with. I think you'll find us more restrictive now."¹⁸¹

Despite such misgivings, the Department of Defense has committed to expanding the U.S. industrial base through bilateral agreements with Western European and other nations. The Declaration of Principles with the United Kingdom is viewed as the first of a series of agreements based on the DoD's "Five Pillars" of industrial base globalization: Industrial Security, Export Controls, Law Enforcement, Intelligence, and Reciprocity.¹⁸² With a precedent-setting agreement completed, the Department of Defense has opened up negotiations with France and Germany and to a lesser extent, Italy, Norway and Sweden.¹⁸³ A German Declaration of Principles appears to be the closest to fruition, with working groups in areas such as industrial security established. Negotiations began in August 1999 between the German armaments director and Under Secretary Jacques Gansler. The next round was completed in January 2000.¹⁸⁴ Though an official agreement is not immediately expected, the negotiations provide hope that security concerns can be assuaged through an established framework and that such an agreement will be reached with Western European nations.

¹⁸⁰ Crock, et al.

¹⁸¹ Michael Gonzalez, "Can America Trust The French?" *The Wall Street Journal*, 23 November 1999, The Early Bird, Online, Available HTTP: <http://ebwest.dtic.mil/Nov1999/e19991123america.htm> (23 November 1999).

¹⁸² Robert Bruce, Director, Armaments Cooperation Atlantic, Office of the Under Secretary of Defense Acquisition, Technology and Logistics, Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

¹⁸³ Robert Bruce, Telephone Interview, 4 May 2000.

2. Industrial Security

While the end of the Cold War has brought about massive changes in force structure and procurement budgets, the relatively sturdy wall of security policy that governs the issues of globalization and transatlantic cooperation has been left largely intact. The rationale for maintaining Cold War levels of security have been reinforced by allegations of Chinese espionage inside U.S. nuclear laboratories and the transfer of satellite technology to China. The subsequent Cox Report¹⁸⁵ has further politicized the issues of industrial security and arms exports and has ensured that government agencies and the U.S. Congress will scrutinize any relaxation of security standards, even for NATO members.¹⁸⁶ Despite the added difficulties, the Department of Defense must work carefully to reconfigure the industrial security apparatus to protect vital areas (for example, nuclear, cryptographic, and satellite technology) and open up others to globalization while taking into account the changes that information technology have wrought. The current industrial security arrangements remain focused on the control of physical access (for example, access to facilities, restricted areas, and photocopiers).¹⁸⁷ Restrictive arms export regulations and refusal to share information and technology with key allies may give the perception of a strong security policy, but such policies also hurt efforts to increase the interoperability of European forces and poison cooperative efforts.

¹⁸⁴ Peter Scaruppe, Counselor, Defense Research and Engineering (Economics), Embassy of the Federal Republic of Germany, Washington, D.C., Personal Interview, 18 May 2000.

¹⁸⁵ Select Committee of the U.S. House of Representatives, "U.S. National Security and Military/Commercial Concerns with the People's Republic of China," (The Cox Report), Washington, D.C.: GPO 1999, Online, Available HTTP: <http://www.house.gov/coxreport/cout/gncout.html>

¹⁸⁶ Colin Clark and Theresa Hitchens, "Pentagon Moves On Globalization—Europe Hails Broader DSB Plan," *Defense News*, 21 June 1999, 60.

¹⁸⁷ Defense Science Board, iv.

The United States has traditionally allowed foreign-owned, controlled, or influenced (FOCI) companies to conduct business within its borders if such influence and control is eliminated or mitigated by a special security agreement. Based on the level of foreign involvement, an agreement will allow a company to operate as a U.S. company with a facility security clearance (FCL). "FOCI agreements are designed to ensure that the foreign parent company cannot access either classified or export-controlled unclassified information." The responsibility for implementing these security agreements "is placed with U.S. citizens responsible for managing the foreign owned subsidiary."¹⁸⁸ If foreign interest in a company is such that it is not entitled to representation on the board of directors, a board resolution that excludes foreign access to classified or export-controlled information and ensures no influence over the performance of classified work will suffice. If the foreign interest has board representation but still controls less than fifty percent of the company's shares, a security control agreement (SCA) must be negotiated with the government. Such an agreement stipulates, "at least one member of the board must be a cleared, disinterested, independent director approved by the CSA [cognizant security agency], and all the principal officers and the chairman of the board must be cleared U.S. citizens."¹⁸⁹

If a foreign interest maintains a majority stake in the U.S. company, the company must formulate a voting trust, proxy agreement, or special security agreement in order to gain a facility security clearance. In a voting trust, the foreign owner "transfers legal title

¹⁸⁸ Defense Science Board, 11.

¹⁸⁹ C. Christopher Griner, Christopher R. Brewster, & Farhad Jalinous, "Investing in America: Companies Operating Under Foreign Ownership, Control, or Influence," Kaye, Scholer, Fierman, Hays, & Handler

of the U.S. company's stock to three Voting Trustees under a Trust Agreement" whereas in a proxy agreement, voting rights are transferred to three proxy holders but the company's title remains with the owner. In both cases, the owner's representatives must be U.S. citizens able to hold security clearances. The final method of mitigating FOCI is also the most advantageous to foreign owners. A special security agreement (SSA) allows the foreign owner to maintain a minority representation on the board through "Inside Directors." At least three "Outside Directors," along with company officers, balance foreign representation on the board. Through an SSA, foreign owners can preserve their shareholder rights and the company can work on classified projects.¹⁹⁰ Despite all such security agreements, the fear of a FOCI firm obtaining restricted information remains a real, if unwarranted, fear. The Defense Science Board reported in 1999 that compliance with security regulations has been higher in FOCI firms than in U.S. national companies.¹⁹¹

As indicated by the high level of compliance, the security agreements for foreign firms have in large part ensured the protection of classified or exportable information. It is in the inner workings of such agreements, however, that problems are discovered. The Department of Defense guidelines for FOCI companies, the National Industrial Security Program Operating Manual (NISPOM), specify not only the security arrangements but also when "proscribed information,"¹⁹² that is information pertinent to a defense contract,

LLP Memorandum, "Regulations Affecting Defence Trade with the US," *Winning Defence Business in the United States* CD-ROM.

¹⁹⁰ Griner, et al.

¹⁹¹ Defense Science Board, iv.

¹⁹² Proscribed information is defined as Top Secret information, Restricted data, some Communication Security (COMSEC) information, Sensitive Compartmented Information (SCI), and Special Access Program (SAP) information.

can be released to a U.S. subsidiary. Such information can only be released when a firm has received a favorable national interest determination (NID). Access is granted given evidence that release of information to a FOCI firm “advances the national security interests of the United States.”” As the Defense Science Board argued, however,

In practice, some government officials hold to the view that NIDs may only be granted in extraordinary circumstances where the national interest requires utilization of the SSA-cleared entity because no U.S.-owned and controlled firm can be found to perform the work. This view is inconsistent with the NISPOM provisions An agency need not demonstrate the national interests “requires” utilization of the SSA firm, but only that the national interest would be “advanced” by release of the information—that is, that the national interest is advanced by possible award of the contract to the SSA cleared firm.¹⁹³

Without access to information, FOCI firms cannot compete with U.S. firms, and as a result, the inherent benefits of open competition are lost. For the U.S. national industrial security system to be successful, the current special security arrangements should be fully and correctly implemented. An ingrained bias against FOCI firms that was created and perpetuated by misconceptions of U.S. defense industrial policy must be eliminated through education and transparency. As it stands now, “there is no reason to believe that the current NID process does anything more than restrict competition for government contracts.”¹⁹⁴

For a demonstrative display of the difficulties the American industrial security system has created in recent years, one has to look no further than the Medium Extended Air Defense System (MEADS) project, the DoD’s often cited example of transatlantic

¹⁹³ Defense Science Board, 71-72.

collaboration. MEADS has been jeopardized by U.S. insistence upon "black boxes" to protect American technology¹⁹⁵ and a general sense of apathy towards solving this contentious issue. The "physical or electronic barriers designed to prevent either tampering or theft of highly sensitive technology" have long angered U.S. allies. In the past, such black boxes were installed for maintenance purposes, but now many feel the barriers reflect a lack of trust in allies. Manfred Opel, a top Social Democrat on the Bundestag Defense Committee and retired German Air Force Brigadier General¹⁹⁶, sharply commented, "The Americans have repeatedly offered joint development of projects, but when it comes down to the execution, they insist on black boxes. We aren't playing this game any longer."¹⁹⁷ Solidifying the German case against the technology barriers, Colonel John Como, director for missile programs in the office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, added that "some of the technology the Pentagon is concerned with protecting is 'not really cutting edge anymore' and may 'not need to be protected.'"¹⁹⁸ Issues such as the MEADS and now Patriot Advanced Capability-3 (PAC-3) system disputes¹⁹⁹ over black boxes clearly demonstrate the costs to the United States as a result of its current security regulations. The United States is quickly losing its credibility as it encourages a closer industrial relationship while at the same time blocking current and future collaborative efforts.

¹⁹⁴ Defense Science Board, 73.

¹⁹⁵ Colin Clark and George I. Seffers, "U.S. Security Restrictions Hinder MEADS Cooperation," *Defense News*, 18 October 1999, 1.

¹⁹⁶ Before elected a member of the Bundestag, Brigadier General Opel served as division head, Air Force procurement, in the Air Force Office (Luftwaffenamt).

¹⁹⁷ Clark & Seffers, 1 & 98.

¹⁹⁸ Clark & Seffers, 98.

¹⁹⁹ "Sharpening: No PAC-3 Black Boxes for Berlin," *Defense News*, 13 March 2000, 2.

3. Arms Export Restrictions

While industrial security issues have often hampered Western European defense firms' entrance into the U.S. market, American export regulations have prevented weapons technology from leaving the market. With noble intentions of preventing the transfer of arms to undesirable nations, the U.S. Department of Defense and Department of State established an elaborate system of arms export controls known as the International Traffic and Arms Regulations (ITAR). Both the Defense and State Departments must approve sales of defense products found on the U.S. Munitions Control List. In February 2000, Secretary of Defense William Cohen sent Secretary of State Madeline Albright a memo entitled, "Export Controls: The Way Ahead." In the memo, Secretary Cohen outlined the DoD's proposal for extending ITAR exemptions to encompass NATO and other selected allies.²⁰⁰ Such a proposal would not only simplify and speed up the process of transferring arms technology to nations whom the U.S. has already committed to defend in times of war, it would also encourage other allies to not only reciprocate this action but encourage transatlantic cooperation and trade as well.

In November 1999, a demonstration of what the United States can expect in the future from a continuation of Cold War-era regulations was leaked to *Defense News*. DaimlerChrysler Aerospace, faced with the continued antiquity and difficulties of the American export-control process, declared in an internal memorandum that

Because of this uncertain export-license situation, with the exception of certain government-to-government cooperative projects, the use of U.S. goods, especially U.S. defense goods, should be avoided at all costs . . . Whenever U.S. goods are being used, they should be substituted as quickly as possible with non-U.S. goods.²⁰¹

Reacting to the Dasa directive, Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics David Oliver acknowledged, “it has been our policy to do this in a deliberately stupid manner,” and that “unless we hurry really, really fast, we’re going to be overwhelmed, because we have a pragmatic demonstration that the current system is both inadequate and inappropriate.”²⁰² Peter Scaruppe, Counselor for Defense Research and Engineering at the German embassy in Washington, D.C., commented that while he hopes the Dasa decision is a one-time occurrence, problems associated with exporting relatively mundane components found on the ITAR list are the most commonly reported by German manufacturers.²⁰³

Recent months have witnessed other efforts to enact both security and arms export control reforms. In June 1999, the Defense Science Board’s globalization task force released a draft report that called for sweeping changes in security regulations and export licenses.²⁰⁴ The DSB task force declares that “defense industry’s transformation into a global industry, like telecommunications, is a fact,” and that “this entails several major shifts in business practices that affect both the ability of the Pentagon to protect

²⁰⁰ Colin Clark, “U.S. Lawmakers Move To Stop Export Exemptions,” *Defense News*, 3 April 2000, 1.

²⁰¹ Vince Crawley, “Arms-Export Controls ‘Deliberately Stupid,’ Official Says,” *Defense Week*, 15 November 1999, 1.

²⁰² Crawley, 1.

²⁰³ Peter Scaruppe, Counselor, Defense Research and Engineering (Economics), Embassy of the Federal Republic of Germany, Personal Interview, 18 May 2000.

²⁰⁴ Clark & Hitchens, 60.

technology and the way DoD acquires weaponry.”²⁰⁵ While calling on the DoD to acknowledge the effects of globalization, the DSB report also calls for concrete changes to existing policy. On a similar tack as Secretary Cohen’s ITAR exemption plan, the task force recommends “major European firms be granted a blanket license for a fixed time period that would cover the export of all weaponry now regulated under the U.S. State Department’s Munitions Control List of sensitive military technology.”²⁰⁶

In tandem with the Defense Science Board’s recommendations but more executable in the near-term given the current atmosphere of apprehension concerning security, a policy draft document, “endorsed by senior officials from all relevant Pentagon agencies,” advocates exceptions and waivers for export licenses, a more streamlined review process, and identification of those technologies on the Munitions Control List that no longer require control.²⁰⁷ These initial attempts at arms export reforms were bolstered in December 1999. A memo drafted by Principal Deputy Under Secretary (Policy) James Bodner and Principal Deputy Under Secretary David Oliver for the undersecretaries of the U.S. Navy, Army, and Air Force directs the selection of one executive within each service secretariat to coordinate export control, foreign disclosure of classified information, Foreign Military Sales, and cooperative research and development agreements.²⁰⁸ The goal of this new policy is to produce consistency across the three services, speed up the process, and with the discovery that important decisions were being made by inexperienced people, ensure that qualified officials are in place. As

²⁰⁵ Clark & Hitchens, 60.

²⁰⁶ Clark & Hitchens, 60.

²⁰⁷ Barbara Opall-Rome, “Pentagon Moves On Globalization—DoD To Ease Export Regulations,” *Defence News*, 21 June 1999, 1 & 60.

Oliver joked, “Do you want to have a 23-year-old lieutenant deciding our arms export policy”²⁰⁹

While reforms are underway which will help ease arms export controls with trusted Western European allies, another contentious issue has continued to arise—U.S. insistence of extraterritoriality. The United States maintains that U.S. export controls are still in effect once U.S. goods or technology have left the country. Even foreign-produced systems or technology are subject to U.S. export controls. “In both these instances, often the U.S. government maintains that it continues to have jurisdiction and control over such items and may seek to punish attempts to disregard its law.” In response, even close allies such as Britain reject “the claimed extra-territorial effect of U.S. export control law.”²¹⁰ Intransigence on this legal issue would lead to open disputes and little cooperation on export policy. Fortunately, the Declaration of Principles with the United Kingdom produced somewhat of a compromise that can be used as a model for future sovereignty versus extraterritoriality disputes. Steve McCarthy described the U.S./U.K. policy as a series of concentric circles: At the center is the agreement that licensing should be minimal between the United States and Britain; in the second circle is the decision to produce “white lists” of nations eligible to purchase jointly produced systems in contrast to “black lists”; and in the third circle is the voluntary agreement on export controls—the United States requests Britain not to re-export U.S. technology but

²⁰⁸ Colin Clark, “Pentagon Marches Ahead With Export Reform,” *Defense News*, 6 December 1999, 6.

²⁰⁹ Clark, “Pentagon Marches Ahead With Export Reform,” 6.

²¹⁰ Oleynik and Epstein, iii.

the United Kingdom is not legally bound to do so.²¹¹ With other more pressing legal issues to resolve, compromise on this perceived threat to national sovereignty is necessary for cooperation on arms export policy.

4. Legislative Obstacles

While security-related issues have dominated the list of cooperation obstacles, the legal restrictions to Western European defense goods and services are mentioned nearly as often. Invoking the national security protectionist mantra, the U.S. Congress and Department of Defense acquisition officials have in the past often opposed opening up all tiers of the U.S. defense market to foreign competitors, even trusted NATO allies. To guide their decisions of whether to restrict contracts from foreign competition, the Department of Defense uses a handbook—*Assessing Defense Industrial Capabilities: A DOD Handbook*. The handbook stipulates that limitations should be placed on foreign sources to

- (1) avoid dependence on a politically unreliable foreign supplier or (2) protect technologies and products that are classified, offer unique war-fighting superiority, or can enable foreign governments to develop countermeasures that could undermine the effectiveness of U.S. systems.²¹²

For trade with Western European NATO members, the first stipulation should not apply. Disagreements between the United States and its Western European allies may occasionally emerge, but it would be difficult to attach the label “politically unreliable foreign supplier” to any of these nations or their defense companies. Given the

²¹¹ Mr. Steve McCarthy, Attaché Defence Supply, British Defence Staff, British Embassy, Washington, D.C., Personal Interview, 18 May 2000.

Department of Defense's desire to foster interoperability and the domination of "unique war-fighting" technologies by U.S. firms,²¹³ the second proviso should likewise not apply to most NATO allies.

Even if one were to argue that the Department of Defense must protect U.S. secrets from British, French, or German arms producers, it is difficult to justify many of the actual restrictions that are currently in place. A simple survey of the administrative and Congressionally-mandated restrictions placed on DoD contracts shows that many of the contracts offered only to domestic suppliers remain well outside of the "Top Secret" realm. A report prepared by the General Accounting Office for Senator John McCain (R-Ariz.) studied the limitations imposed by Department of Defense policy and 10 U.S.C. 2534. The GAO list of items currently restricted by 10 U.S.C. 2534 includes buses, ball bearings, anchor and mooring chains, totally enclosed lifeboats, and marine gyroscopes. The rationale given for restrictions on such items reflects not a desire to protect national secrets but to protect the national industrial base against cheaper foreign suppliers. A cynical observer would declare that such restrictions were simply attempts by Congressmen to protect firms in their constituencies and would probably be close to the mark in many of restriction instances.²¹⁴ To its credit, the Department of Defense has

²¹² United States, General Accounting Office, "Defense Acquisition: Rationale for Imposing Domestic Source Restrictions," July 1998, GAO/NSIAD-98-191, Online, Available HTTP: <http://www.gao.gov> (2 December 1999).

²¹³ U.S. firms currently hold a near national monopoly on defense technologies such as stealth and GPS munitions guidance. As a result, American companies will likely continue to dominate DoD competitions for the production of systems utilizing such technologies.

²¹⁴ Though drawing no conclusions, the GAO's citation of the anchor chain example reflects Congressional influence. Under U.S. law [10 U.S.C. 2500(1)], Canada is considered part of the national technology and industrial base. The Defense Appropriations Acts of 1989 and 1998, however, effectively eliminate Canadian competition by stipulating that anchor chains must be acquired from U.S. sources and manufactured in the United States. Such legislation protects the two U.S. suppliers of anchor chain.

sought to administratively correct such restrictions. In 1995, the DoD “initiated actions to eliminate agency wide domestic source restrictions imposed by DoD policy,” in order to “take advantage of more competitive global markets when consistent with national security requirements.”²¹⁵

While affecting relatively mundane defense articles at lower tiers than the most expensive and sophisticated weapons systems, domestic source restrictions nonetheless give the perception of a closed market to the United States’ Western European allies. At the heart of the United States’ structural obstacles and this perception is the Buy American Act of 1933. The Buy American Act (41 U.S.C. § 10a) states that

The Federal Government is required to buy domestic products unless such purchases are:

- (1) inconsistent with the public interest;
- (2) unreasonable in cost;
- (3) for use outside the United States; or
- (4) of products not produced or manufactured in the United States in sufficient and reasonably available commercial quantities and of satisfactory quality.²¹⁶

An amendment in 1988 strengthened the original act but allowed for exemptions given by the head of a federal agency (for example, the Secretary of Defense, Secretary of the Army, Navy, or Air Force). The exemptions to the Buy American Act are enacted through Memoranda of Understanding (MOU) with individual nations. Fortunately for transatlantic cooperation, the NATO nations have received blanket exemptions through

²¹⁵ United States, General Accounting Office, “Defense Acquisition: Rationale for Imposing Domestic Source Restrictions,” July 1998, GAO/NSIAD-98-191, Online, Available HTTP: <http://www.gao.gov> (2 December 1999).

the Culver-Nunn Amendment. Unfortunately, the MOU trade is still restricted by provisions of the U.S. National Disclosure Policy, U.S. defense mobilization base requirements, U.S. laws and regulations (for example, DoD appropriations acts), and U.S. industrial security requirements.²¹⁷ According to the Department of Commerce, such laws do more than merely upset foreign defense contractors. The restrictions “stifle U.S. competitiveness, invite foreign retaliation, and can damage U.S. industry interests over the long term.”²¹⁸

While the ability of the Secretary of Defense and service secretaries to side step The Buy American Act with Memoranda of Understanding and the efforts of acquisition officials to eliminate DoD-enacted restrictions, the ability of the U.S. Congress to enact new restrictions has created a protectionist system that continues to draw the ire of foreign defense ministries. The system is further perpetuated by a domestic source preference within the Department of Defense despite protestations to the contrary. The DoD’s statistics directorate produces a breakdown of procurement for every fiscal year. In FY1998, the Department of Defense procured a total of \$118,138,926,000 worth of goods and services. Payment to one hundred companies and their subsidiaries accounted for 60 percent of this total, or \$70,996,368,000.²¹⁹ Of the one hundred companies

²¹⁶ John R. Luckey, *Brief Summary Of The Buy American Act*, Congressional Research Service, The Library of Congress, Committee on Government Operations, House of Representatives, 101st Cong., 1st sess. Washington: GPO, 1990.

²¹⁷ United States, Department of Commerce, *Questions and Answers for the Legislation and National Security Subcommittee*, Committee on Government Operations, House of Representatives, 101st Cong., 1st sess. Washington: GPO, 1990.

²¹⁸ United States, Department of Commerce.

²¹⁹ United States, Department of Defense, Directorate for Information Operations and Reports, “100 Companies Receiving The Largest Dollar Volume Of Prime Contract Awards—Fiscal Year 1998,” Online, Available HTTP: <http://web1.whs.osd.mil/peidhome/procstat/p01/fy1998/top100.htm> (30 November 1999).

receiving the largest dollar volume of prime contract awards, only four identifiable foreign companies received contracts. The four companies, all European, accounted for only 2.3 percent of the top one hundred contractor's procurement total.²²⁰

As demonstrated by the Memoranda of Understanding and NATO blanket exemptions, the legal obstacles to transatlantic cooperation can be overcome. While the Department of Defense will always face Congressionally-mandated restrictions, it can help eliminate the European perception of a non-level playing field by rescinding all administrative restrictions with exceptions given only to preserve national security. In addition, the Department of Defense should ensure that Western European firms are given an equal chance to compete for prime contracts. True competition will not only allow the United States to get "value for money," to borrow a British phrase, but a stronger cooperative relationship with Western European arms firms as well.

C. FORTRESS EUROPE VERSUS FORTRESS AMERICA

The merger of DaimlerChrysler Aerospace, Aerospatiale Matra, and Construcciones Aeronauticas S.A., into the European Aeronautic, Defense and Space Company has added a new dimension to the traditional support of national armaments producers—European preference. For almost a decade, France, in particular, has urged European governments to endorse a "European preference" when defense contract competitions are opened. The creation of a truly pan-European defense firm has added to the continental atmosphere. In large part, however, the Western European arms market remains open to American products. In fact, the balance of trade is often tilted largely in

²²⁰ The four European companies in the top 100 included #17 General Electric Company plc (\$732,057,000), #31 Rolls-Royce plc (\$345,054,000), #39 Philipp Holzmann Aktiengesellschaft (\$304,998,000), and #49 Shell Oil Company (\$254,625,000).

favor of the United States. European government and industrial leaders often speak of a two-way transatlantic trade route with eight lanes going from the U.S. to Europe and one lane in the opposite direction. Even defense trade with Britain, the largest exporter of defense goods to the United States, remains skewed in favor of U.S. manufacturers (Table 5).²²¹ Whether this pattern will hold true, however, remains the question on many American officials' minds.

Though initially supportive of industry consolidation, American industry and government officials have become increasingly apprehensive about the direction of Western European consolidation efforts. Bruce Jackson, a vice president of Lockheed Martin, articulated American misgivings well: "When Jospin celebrated the alliance [of EADS] in Strasbourg by saying, 'This is a victory for Germany, France, and Europe,' I have to ask, who's it a defeat for?"²²² Department of Defense officials have expressed concern that the most recent consolidation efforts will produce large European competitors with little desire to cooperate with American firms. Both former Deputy Secretary Hamre and Under Secretary Gansler have warned of an impending "Fortress Europe" versus "Fortress America" that will prevent transatlantic arms cooperation. Deputy Secretary Hamre, in particular, was outspoken in his opposition to the two largest European mergers for two main reasons—the possibility of American firms being locked out of the European market and the loss of possible merger partners for American companies.

²²¹ "Balance of Trade: US/UK Defence Trade," Defence Export Services Organisation, UK Ministry of

Table 15: US/UK Defense Trade
Source: Defence Export Services Organisation

US FISCAL YEAR	UK PURCHASES (\$ MILLIONS)	UK SALES (\$ MILLIONS)	US:UK SALES (RATIO)
1986	1050.6	860.6	1.2 : 1
1987	1723.8	1105.3	1.6 : 1
1988	1740.2	93402	1.9 : 1
1989	1848.8	918.4	2.0 : 1
1990	1694.5	1031.5	1.6 : 1
1991	2126.8	881.5	2.4 : 1
1992	1326.0	807.7	1.6 : 1
1993	1334.3	976.1	1.4 : 1
1994	1234.6	608.6	2.0 : 1
1995	3680.2	696.1	5.3 : 1
1996	1774.4	1489.6	1.2 : 1
1997	2756.8	1376.1	2.0 : 1

Defence, *Winning Defence Business in the United States* CD-ROM, 7 April 2000.
²²² Gonzalez.

Despite outward appearances of encouragement by the U.S. Department of Defense and European governments, no potential transatlantic mergers are currently foreseen. According to U.S. defense company officials, the key reason "is the fact that no company can be sure how such a proposal would be met by the governments involved—on both sides of the Atlantic."²²³ Robert Coutts, president and CEO of Lockheed Martin's electronics sector, noted that the amount of energy, time, and money that would be required to seek government approval by two companies is "too great to justify, without a high degree of confidence that the transaction would win approval."²²⁴ Statements by top DoD officials have unintentionally reinforced this negative image of government approval. Former Deputy Secretary Hamre has continually criticized the British Aerospace-GEC Marconi merger since its announcement in January 1999 despite the fact that the merger could end up fostering a transatlantic link-up. Charles Grant, Director of the Centre for European Reform noted that before the British merger, the plan for European consolidation called for the creation of a single Western European defense company—the European Aerospace and Defense Company (EADC). Now that there are "at least two major players in Europe, competing transatlantic partnerships are feasible."²²⁵

In an interview with Bloomberg News following the Dasa-Aerospatiale Matra announcement, Deputy Secretary Hamre expressed doubt that either the new British company or Franco-German enterprise could acquire or be acquired by an American

²²³ Colin Clark, "U.S. Industry Urges Bias for International Mergers," *Defense News*, 4 October 1999, 36.

²²⁴ Clark, 36.

²²⁵ Charles Grant, "Transatlantic Alliances and the Revolution in Military Affairs," Online, Available HTTP: <http://defence-data.com/features/fpage29.htm> (3 December 1999).

firm.²²⁶ In light of such large mergers in Western Europe and the perception of a “European preference” within Western Europe, two questions beg answering:

1. Are Western European governments moving toward a preference for European military hardware, and;
2. Are transatlantic mergers now necessary or desirable?

Two recent procurement decisions in the United Kingdom will undoubtedly be used to bolster the contention that Western Europe is constructing a “Fortress Europe” through its procurement policies. In a long awaited but largely anticipated announcement, Geoffrey Hoon informed the British parliament on 16 May 2000 that the Ministry of Defence had chosen the European Meteor air-to-air missile to arm Britain’s Eurofighters over its Raytheon competitor. Secretary Hoon also announced that while it would lease four Boeing C-17 transport aircraft to meet Britain’s interim airlift requirements, the MoD would commit to order Airbus A400M transports provided other nations make a similar commitment.²²⁷ Under pressure by President Clinton and Secretary Cohen on one side and the heads of state of France, Germany, and Italy on the other, British Prime Minister Tony Blair was forced to make decisions that would upset at least one of Britain’s strategic partners. The Beyond-Visual-Range Air-to-Air Missile (BVRAAM) competition, while billed as an American-European battle, became a transnational fight as Boeing joined forces with Matra BAE Dynamics in advocating the Meteor and Raytheon brought aboard the German firm Diehl VA Systeme to help market

²²⁶ Tony Capaccio, “‘Fortress Europe’ Rules Out U.S. Defense Takeovers, Hamre Says,” *Defense Week*, 25 October 1999, 15.

²²⁷ Alexander Nicoll, “Blow to Raytheon as UK Defence Orders Go to Europe,” *Financial Times*, 17 May 2000, 1.

its ERAAM Plus missile.²²⁸ While the two most recent British acquisitions went to European manufacturers, the overall trend in British procurement is not one of European advocacy. Since 1994, the British Ministry of Defence has purchased \$8.024 billion worth of American weapons systems, including Paveway Laser-guided bombs, C-130J Hercules transport aircraft, Tomahawk cruise missiles, and Apache attack helicopters.²²⁹

In other nations, fiscal reality has forced European preference into the background. As is natural for a sovereign state with a strong industrial base, Western European nations tend to purchase first from national producers. The Swedes fly Saab Gripen fighters, the French operate Giat Leclerc tanks, and the Germans sail *Brandenburg*-class frigates built in German shipyards. When necessary or more beneficial, however, Western European nations have purchased weapons systems from the United States. Between 1994 and 1996, the French government acquired \$700 million worth of defense equipment from the United States, including KC-135 tanker aircraft and E-2 Hawkeye early warning aircraft.²³⁰ With a smaller industrial base than its western neighbor and a smaller procurement budget, Germany continues to seek out the best possible product for its money. Colonel Bernd Hellstern, Deputy Commander of the German Armed Forces Command in the United States, noted that the German procurement officials in the Bundesamt für Wehrtechnik und Beschaffung (BWB) must take into consideration cost/value, quality, and need when determining from whom to

²²⁸ "Raytheon, Diehl Join in UK Pact," *Boston Globe*, 24 February 2000, D20.

²²⁹ "US/UK Trade," Defence Export Services Organisation, UK Ministry of Defence, *Winning Defence Business in the United States* CD-ROM, 10 April 2000.

²³⁰ Forecast International, Foreign Military Markets, NATO and Europe, "France (Market Overview)," March 2000, 23.

purchase defense products.²³¹ In Germany and other Western European nations, smaller post-Cold War budgets have dictated the necessity of open competition over any preference for European systems.

Examining the necessity or desirability of transatlantic mergers between prime contractors further dispels the fear of a "Fortress Europe" versus "Fortress America" battle. Expressing his personal opinion, Mr. Steve McCarthy, the British Defence Supply Attaché in Washington, noted that the global arms market is now supporting six prime contractors: Boeing, Lockheed Martin, and Raytheon in the United States and Thomson-CSF, BAE Systems, and EADS in Europe. This transatlantic distribution allows for the formation of balanced project teams, as witnessed by the pairing of Lockheed Martin and BAE Systems on the Joint Strike Fighter. Keeping the six primes separate will allow for greater "maneuvering" and create the competitive environment national governments have struggled to maintain.²³² This joint venture scenario has actually been assisted by *de facto* DoD policy. Though official statements from the Department of Defense encourage transatlantic ventures, Hamre's public comments have in effect discouraged any attempts by either first or second tier firms. While the possibility for transatlantic mergers exists, the probability has been greatly decreased in the near future. Pentagon leaders such as the new Deputy Secretary, Rudy de Leon, are now avoiding criticism of the European mergers and concentrating on making collaborative projects and lower tier investments more attractive.

²³¹ Colonel Bernd Hellstern, Deputy Commander, German Armed Forces Command, Reston, Virginia, Personal Interview, 16 May 2000.

²³² Mr. Steve McCarthy, Personal Interview, 18 May 2000.

A sign that the Fortress Europe/Fortress America mindset is waning came with the recent announcement of two transatlantic acquisitions. On 14 April 2000, General Dynamics released details of its purchase of Santa Barbara de Industrias, S.A. and Santa Barbara Blindados, S.A., collectively known as ENSB. ENSB, Spain's primary producer of combat vehicles and munitions, "provides an opportunity for cooperation in European, South American and North African combat vehicle and armaments markets."²³³ Another acquisition on the other side of the Atlantic likewise reinforces the closer integration of American and Western European markets. John Weston, Chief Executive of BAE Systems, announced the purchase of Lockheed Martin Control Systems for \$510 million on 27 April 2000. The purchase not only provides BAE Systems with the Lockheed Martin division's expertise in full-authority digital engine controls and digital fly-by-wire flight controls, but it also gives the British prime greater presence in the American market.²³⁴ The growing integration of the transatlantic markets as a result of lower tier investments and joint venture projects will provide industry with greater access to national markets while breaching the fortress mentality. The economic benefits of open transatlantic competition should similarly dispel this protectionist attitude.

²³³ "General Dynamics to Buy Spain's ENSB," Defence Systems Daily, Online, Available HTTP: <http://defence-data.com/current/page6932.htm> (14 April 2000).

²³⁴ "BAE Systems Acquires Lockheed Martin's Control Systems Business," Defence Systems Daily, Online, Available HTTP: <http://defence-data.com/current/page7040.htm> (28 April 2000).

THIS PAGE INTENTIONALLY LEFT BLANK

IV. CONCLUSIONS

In recent years, the streets of Seattle and Washington, D.C. have served as the battlefields of a struggle against the perceived monolithic threat of globalization by activists of all political persuasions. At the same time, the corporate globalization movement has assaulted one of the last bastions of sovereignty—national security. The economic realities of declining defense budgets and a smaller global arms market have forced governments to look beyond their own national borders when purchasing new armaments. This new global approach by governments in both the United States and Western Europe has resulted in an unprecedented consolidation of defense industries on both sides of the Atlantic. While the dramatic stories of cross-border mergers, equity transactions, and joint ventures are a reflection of the current globalization trend, the true foundations were laid over two hundred years ago.

Adam Smith's *Wealth of Nations* established not only the tenets of modern capitalism but also the scope of government involvement in that system as well. In marked contrast to the government economic policies of his day, Smith encapsulated the essential belief in the power of markets over direct government control in a simple phrase: the invisible hand. Smith's economic philosophy gradually took hold in Western society as politicians, merchants, and colleagues came to understand the true power of the marketplace. At the same time, many governments drew a line where the market-based economy and national security concerns converged. Until economic forces spurred the globalization movement to supersede, a neo-mercantilist system supported by direct involvement of governments has held sway over the procurement of arms in many

Western nations. The sudden demise of a centuries-old economic system and the government-industrial relationship that lay at its heart requires a thorough examination of that relationship, its evolution, the events within both the private and public sectors that have resulted, and the transatlantic implications. This thesis has sought to address these vital elements in order to provide an insight into the increasingly important defense-industrial component of international security.

A. CORPORATE GOVERNANCE AND THE GOVERNMENT-INDUSTRIAL RELATIONSHIP

While falling outside the purview of most policy analysts and political scientists, the issue of corporate governance displays the significant role that government plays within the defense industry. The relationship between the owners and managers of a firm is complicated when a national government assumes both roles along with that of consumer. In completely or partially state-owned defense firms, the goal of profit maximization often loses out to political goals such as the preservation of the defense-industrial base or regional employment. In addition, such firms are often inefficient as managers have little incentive for success. Such conclusions have guided the privatization movement within much of Western Europe.

Driven in large part by the strong will of Margaret Thatcher, the United Kingdom has virtually eliminated state ownership within the defense industry. The dominance of the private sector and its reliance upon the market for direction and capital has helped British defense firms to achieve market strength and large profits. In France, true privatization of state-owned enterprises has been hampered by the desire of the French government to maintain control or influence within the nation's defense industry.

Through cross and self-shareholding schemes, the French state has created an industry controlled by a small group of industrial investors. Large state shareholdings further concentrate the ownership structure. It is the composition of France's ownership structure, however, and not concentrated ownership itself that has created problems for French firms. With the possible exception of a golden share, the French state must sell off its holdings and encourage ownership diversification. The German corporate governance system is likewise representative of the continental European focus on concentrated ownership for the sake of company stability. Both the issues of government involvement and ownership concentration will continue to play a significant role in determining the composition of future mergers and investments. As corporate governance systems converge with the growing importance of proxy investors, American and Western European will be better able to match competencies and produce synergies through mergers cross-border mergers.

B. CHANGING THE INDUSTRIAL COMPONENT

While the role of the state within the government-industrial relationship has seen great change in recent years, such modification has been at the behest of the defense industry. Consolidation of the industry first in the United States and later in Western Europe has drastically altered the global arms market. A simple reduction in the number of competitors, however, is not the solution to the shrinking procurement budgets. While allowing the United States to proceed first with consolidation process has given the lead to U.S. companies in terms of technology and market share, it also allowed Western European firms to learn from the many mistakes made on the other side of the Atlantic. With these "lessons learned" clearly in mind, Western European industrialists have

started the consolidation process with a renewed focus on restructuring and domestic markets. Similarly, European governments watched with keen interest the proposed Lockheed Martin-Northrop Grumman merger and its subsequent DoD denial for competition concerns. They have now focused on ensuring that the consolidation process does not eliminate competition.

The 1999 mergers that produced systems integrator companies BAE Systems and the European Aeronautical, Defense and Space Company (EADS) highlighted the necessity of restructuring a merged company and not simply changing the name on the outside of the building. The future of these new titans will depend on their ability to streamline operations, overcome cultural obstacles, and create synergies. The land systems sector, while not receiving the same attention as the more exciting aerospace sector, has been the proving ground for new strategies at seizing domestic markets. European vehicle manufacturers have and must continue to consolidate domestic markets and enter new markets through mergers and equity transactions. Such efforts must in the end, however, be approved by national governments. As was seen in the British approval of Thomson's purchases within Britain, government officials now view cross-border consolidation as a means to ensure competition. The eventual success of Western European consolidation and the ability of European firms to compete with their U.S. counterparts are dependent upon success in all of these areas.

C. GOVERNMENT ADAPTATION

The large number of Western European mergers in 1999 is evidence of the industry's attempts to adapt in light of globalization and changing economic factors. The question of government's capability to adapt to globalization and industry restructuring is

not as concrete. The refusal of some governments to cede control of their arms production through the ownership structure remains a hindrance to future European industrial restructuring. The most significant obstacles, however, remain entrenched in the culture of many European nations. The strength of labor unions and a governmental focus on labor and employment issues continues to plague continental nations as they seek to compete against British and American companies operating in cultures without such obstacles. Laws such as that dictating a thirty-five hour workweek in France must be eliminated and unions throughout Europe must be willing to accept employment and facility cuts in order to increase productivity. Cultural changes must be advocated by the states in Western Europe for government to match the progress made by industry.

D. TRANSATLANTIC COOPERATION

As the United States contemplates its future role in Europe given the strengthening of Europe's resolve to formulate a security policy and defense force to carry it out, defense officials must commit to creating an atmosphere where transatlantic cooperation can exist. The defense industries in both the United States and Western Europe have accepted the challenge of adapting to a new, harsher environment. Governments on both sides of the Atlantic must likewise accept the challenge of tearing down obstacles that have hindered cooperation in the past.

Unfortunately, much of the necessary demolition must occur on our side. Antiquated national security concerns and an effort to protect the U.S. defense-industrial base formed the foundation of former Deputy Secretary John Hamre's feared "Fortress America" long ago. Outdated restrictions on foreign investment in the U.S. defense market, industrial security regulations, arms export restrictions, and legislative laws have

colluded to prevent fair access to the U.S. market for European defense goods. Only a concerted effort to reform the regulatory systems by all parties concerned—Department of Defense, Department of State, and Congress—will result in more equitable trade.

In the skies over Kosovo and Yugoslavia, the United States and its NATO allies arrived at the conclusion that the growing capability gap between the two sides must be quickly bridged. The possibility of European forces being sidelined in a future conflict for their inability to operate with the United States effectively is one that must be avoided at all costs. The staging grounds for any efforts at closing the gap are within the defense-industrial bases of the United States and Western Europe. Recognition of the changing relationship between government and industry is necessary to not only promote the successful restructuring of Western European industry but to create an atmosphere of both cooperation and friendly competition in the United States and Europe. Consolidation and restructuring within Europe is a vital process, born of economic necessity and a growing globalization movement. As it did in the United States, this process will reach a culminating point in the future. Whether that final point results in transatlantic cooperation or animosity and resentment is a matter of concern for government and industry alike.

BIBLIOGRAPHY

Books

- Baum, Warren C. *The Economy and the State*. Princeton: Princeton University Press: 1958.
- Cairncross, Alexander. "The Market and the State." in *The Market and the State: Essays in Honour of Adam Smith*. eds. Thomas Wilson and Andrew S. Skinner. Oxford: Oxford University Press, 1976.
- Drown, Jane Davis, Clifford Drown, and Kelly Campbell. eds., *A Single European Arms Industry?* London: Brassey's Ltd, 1990.
- Ebenstein, William and Alan O. Ebenstein. *Great Political Thinkers*. fifth ed., Fort Worth, TX: Harcourt Brace College Publishers, 1991.
- Estrin, Saul. "State Ownership, Corporate Governance and Privatisation." in *Corporate Governance, State-Owned Enterprises and Privatisation*, Paris: OECD, 1998.
- Frankel, S. Herbert. *Adam Smith's "Invisible Hand" in a Velvet Glove*. The G. Warren Nutter Lectures in Political Economy. Washington, D.C.: American Enterprise Institute for Public Policy Research, 1980.
- Gompert, David, Richard Kugler, and Martin Libicki. *Mind the Gap: Promoting a Transatlantic Revolution in Military Affairs*. Washington, D.C.: National Defense University Press, 1999.
- Lane, Christel. *Industry and Society in Europe*. Aldershot, UK: Edward Elgar Publishing Ltd., 1995.
- MacLaury, Bruce K. foreward to *Financial Integration, Corporate Governance, and the Performance of Multinational Companies* by Mitsuhiro Fukao. Washington, D.C.: The Brookings Institution, 1995.
- Morin, François. "The Privatisation Process and Corporate Governance: The French Case." in *Corporate Governance, State-Owned Enterprises and Privatisation*. Paris: OECD.
- Organisation for Economic Co-Operation and Development. *OECD Economic Surveys: France 1996-1997*. Paris: OECD Publications, 1997.

Organisation for Economic Co-Operation and Development. *OECD Economic Surveys: France 1998-1999*. Paris: OECD Publications, 1999.

Organisation for Economic Co-Operation and Development. *OECD Economic Surveys: United Kingdom 1997-1998*. Paris: OECD Publications, 1998.

Schleifer, Andrei and Robert W. Vishny. *A Survey of Corporate Governance*. Working Paper Series, Cambridge, MA: National Bureau of Economic Research, Inc., 1996.

Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Chicago: Encyclopædia Britannica, 1993.

Thatcher, Margaret. *The Downing Street Years*. New York: HarperCollins Publishers, 1993.

Periodicals

Banks, Howard. "Walls Around Europe." *Forbes*, 15 May 2000, 158.

Beauclair, Nicole, Jean-Claude Bourbon, and Matthieu Quiret. "Another Piece in the Puzzle." *Interavia*, November 1999, 15.

Bender, Bryan. "Europe Urged to Follow US Lead on Consolidation." *Jane's Defence Weekly*, 1 July 1998, 22.

"British Aerospace Gets OK On Marconi Deal." *Los Angeles Times*, 23 November 1999, C4.

Capaccio, Tony. "'Fortress Europe' Rules Out U.S. Defense Takeovers, Hamre Says." *Defense Week*, 25 October 1999, 15.

"Casa Becomes EADS Founding Member." *Interavia*, December 1999, 45.

Clark, Colin. "Pentagon Marches Ahead With Export Reform." *Defense News*, 6 December 1999, 6.

-----, "U.S. Industry Urges Bias for International Mergers." *Defense News*, 4 October 1999, 36.

-----, "U.S. Lawmakers Move To Stop Export Exemptions," *Defense News*, 3 April 2000, 1.

- Clark, Colin and Theresa Hitchens. "Pentagon Moves On Globalization—Europe Hails Broader DSB Plan." *Defense News*, 21 June 1999, 60.
- Clark, Colin and George I. Seffers. "U.S. Security Restrictions Hinder MEADS Cooperation." *Defense News*, 18 October 1999, 1.
- Cowell, Alan. "Rivals' Deal Raises Questions on Fate of British Aerospace." *New York Times*, 19 October 1999.
- Crawley, Vince. "Arms-Export Controls 'Deliberately Stupid,' Official Says." *Defense Week*, 15 November 1999, 1.
- Crock, Stan, Gail Edmondson, and Heidi Dawley. "The Pentagon Has a Little Transatlantic Merger List: It May O.K. Defense Deals—With a Favored Few." *Business Week* (Int'l Edition), 22 March 1999.
- "Cross About Holdings." European Business Survey, *The Economist*. 29 April-5 May 2000, 13.
- "Divided Continent." *The Economist*, 14 June 1997, 11.
- Dowdy, John J. "Winners and Losers in the Arms Industry Downturn." *Foreign Policy*, Summer 1997, 96-98.
- , "US Industry Leading the Pack in Productivity Battle," *Interavia*, July/August 1999, 15.
- "Europe's Opportunity." *The Economist*, European Business Survey. 29 April 2000, 20.
- Hitchens, Theresa and Brooks Tigner. "Clashing Agendas Threaten Europe Arms Unity." *Defense News*, 30 March – 5 April 1998, 3.
- Hoagland, Jim. "A Global Riddle." *The Washington Post* (National Weekly Edition), 1 November 1999, 5.
- Ing, David. "Dasa-CASA Merger Ends Single Industry Dream." *Jane's Defence Weekly*, 23 June 1999, 20.
- "Law Stifles French Industry." *Defense News*, 10 April 2000, 14.
- "Lean, Mean, European." European Business Survey, *The Economist*. 29 April-5 May 2000, 6.
- Lewis, J. A. C. "France Breaks Promise Not To Cut Spending." *Jane's Defence Weekly*, 21 July 1999, 8.

- MacKenzie, Christina. "Paris Keeps Aerospatiale-Matra Reins." *Defense News*, 1 March 1999, 19.
- "Markets and Maginot Lines." *The Economist*, 28 October 1995, 23.
- Meggison, William. "Privatization." *Foreign Policy*, Spring 2000, 15.
- Michaels, Daniel. "British Aerospace's New Name and Structure May Mean Clearer Skies for Company's Stock." *The Wall Street Journal*, 29 November 1999, C2.
- Moran, Theodore H. "The Globalization of America's Defense Industries." *International Security* 15. no. 1 (Summer 1990): 96.
- Nicoll, Alexander. "Blow to Raytheon as UK Defence Orders Go to Europe." *Financial Times*, 17 May 2000, 1.
- Opall-Rome, Barbara. "Pentagon Moves On Globalization—DoD To Ease Export Regulations." *Defense News*, 21 June 1999, 1 & 60.
- "Raytheon, Diehl Join in UK Pact." *Boston Globe*, 24 February 2000, D20.
- "Scharping: No PAC-3 Black Boxes for Berlin." *Defense News*, 13 March 2000, 2.
- "Talks Start On Successor to OCCAR Body." *Jane's Defence Weekly*, 15 October 1997, 17.
- "Unions' unions." European Business Survey, *The Economist*, 29 April 2000, 16.
- Wolf, Charles Jr. "The New Mercantilism." *The Public Interest*. no. 16 (Summer 1994): 58.

Electronic Periodicals

- "British Aerospace Says Merger Talks in 'Advanced' State." Deutsche Presse-Agentur. 7 December 1998. Online. Available: LEXIS-NEXIS Academic Universe (15 December 1998).
- Gonzalez, Michael. "Can America Trust The French?" *The Wall Street Journal*, 23 November 1999. The Early Bird. Online. Available HTTP: <http://ebwest.dtic.mil/Nov1999/e19991123america.htm> (23 November 1999).

- Kemp, Damian. "OCCAR Receives Licence to Manage Own Deals, Staff." *Jane's Defence Weekly*, 16 September 1998, Online, Available: LEXIS-NEXIS Academic Universe (5 April 1999).
- Michaels, Daniel and Charles Goldsmith. "DASA, Aerospatiale Merger Forms Intra-European Aircraft, Defense Giant." *The Wall Street Journal*, 15 October 1999. Online. The Early Bird. Available HTTP: http://ca.dtic.mil/cgi-bin/ebird?doc_url=/Oct1999/e19991015dasa.htm (15 October 1999).
- Morocco, John D. "U.S. Assesses Shifting Transatlantic Ties." *Aviation Week and Space Technology*, 14 December 1998, 59. Online. Available: LEXIS-NEXIS Academic Universe (28 February 1999).
- Muradian, Vago. "Weston: U.S.-Euro Defense Mergers Await Clear U.S. Policy." *Defense Daily*, 30 September 1998, 1. Online. Available: LEXIS-NEXIS Academic Universe (28 February 1999).
- Nicoll, Alexander. "Arms Procurement Treaty Signed by Four Nations: Boost for European Agency." *The Financial Times*, 10 September 1998, 6, Online, Available: LEXIS-NEXIS Academic Universe (5 April 1999).
- Rogers, Marc. "'Euro DARPA Needed to Bridge Technology Gap.'" *Jane's Defence Weekly*, 3 June 1998, 8, Online, Available HTTP: <http://fore.thomson.com/janes/> (1 April 1999).
- "WEAO Grows in NATO's Shadow." *Intelligence Newsletter*, 4 December 1997, Online, Available: LEXIS- NEXIS Academic Universe (5 April 1999).

Electronic Media

- "Armaments Cooperation." *NATO Handbook*. Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v127.htm> (28 October 1999).
- "Arms Production: Recent Trends in Arms Production." Stockholm International Peace Research Institute. Online, Available HTTP: <http://projects.sipri.se/milex/aprod/trends.html> (30 November 1999).
- "BAe, Marconi merge into BAE SYSTEMS." *Defence Systems Daily*, Defence Data Ltd., Online, Available HTTP: <http://defence-data.com/current/page5937.htm> (1 December 1999).

- "BAE Systems." BAE Systems Company web page, Online, Available HTTP: <http://www.baesystems.com/dynamic/d945812.htm> (30 November 1999).
- "BAE Systems Acquires Lockheed Martin's Control Systems Business." Defence Systems Daily, Online, Available HTTP: <http://defence-data.com/current/page7040.htm> (28 April 2000).
- "BAE Systems' Evans Vow Not to Repeat Lockheed's Mistakes." AFX Europe, 30 November 1999, Online, Available HTTP: <http://www.ft.com> (3 December 1999).
- "Balance of Trade: US/UK Defence Trade." Defence Export Services Organisation, UK Ministry of Defence, *Winning Defence Business in the United States*. CD-ROM, 7 April 2000.
- "Conference of National Armaments Directors (CNAD)." *NATO Handbook*. Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v219.htm> (28 October 1999).
- "Consolidated Version of the Treaty Establishing the European Community." European Union, Online, Available HTTP: http://europa.eu.int/eur-lex/en/treaties/dat/ec_cons_treaty_en.pdf (14 May 2000)
- Crane, Chris. "Dealing with reality—the difficulties of European consolidation." Online, Available HTTP: <http://defence-data.com/features/fpage31.htm> (3 December 1999).
- "Declaration of Principles for Defense Equipment and Industrial Cooperation." *Winning Defence Business in the United States*. British Defence Staff (Washington), Defence Supply Office, CD-ROM.
- Forecast International. Defense & Aerospace Companies—Volume 2. "British Aerospace plc," 2nd Quarter, 1998, CD-ROM.
- Forecast International. Foreign Military Markets, NATO and Europe. "France (Market Overview)," 2nd Quarter, 1998, CD-ROM.
- Gansler, Jacques S. "The Defense Industry Base In The 21st Century." Aviation Weekly Aerospace Finance Conference. New York. 14 April 1999. Online. Available HTTP: <http://www.acq.osd.mil/ousda/speech/aviationweekly.htm> (25 October 1999).
- "General Dynamics to Buy Spain's ENSB." Defence Systems Daily, Online, Available HTTP: <http://defence-data.com/current/page6932.htm> (14 April 2000).

- Grant, Charles. "Transatlantic Alliances and the Revolution in Military Affairs." Online, Available HTTP: <http://defence-data.com/features/fpage29.htm> (3 December 1999).
- Griner, C. Christopher, Christopher R. Brewster, & Farhad Jalinous. "The Exon-Florio Process—Review of Acquisitions and Investments in the United States by Foreign Investors." Kaye, Scholer, Fierman, Hays, & Handler LLP Memorandum, Prepared for the British Defence Staff (Washington), March 2000, CD-ROM.
- "Highlights of the Debates 96-98." Euroforum Website. Online, Available HTTP: <http://www.forum-europe.com> (27 March 1999).
- Lannoo, Karel. "Corporate Governance in Europe: Report of a CEPS Working Party." Centre for European Policy Studies, June 1995. Online, Available HTTP: <http://www.ecgn.ulb.ac.be/ecgn/docs/codes/cepsreport.pdf> (4 May 2000).
- "NATO's New Research and Technology Organization." Online, Available HTTP: <http://www.nato.int/docu/review/articles/9701-5.htm> (1 November 1998).
- Oleynik Ronald A. and Jonathon Epstein, Holland & Knight LLP. "Winning Defence Business in the United States: A Guide to U.S. Export Controls." Prepared for the British Defence Staff (Washington), March 2000, CD-ROM.
- "Research and Technology Organisation (RTO)." *NATO Handbook*. Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v245.htm> (28 October 1999).
- Ripley, Tim. "Western European Aerospace & Defence Industries—The Ownership Jigsaw." *Defence Systems Daily*, Online, Available HTTP: <http://defence-data.com/current/pagerip1.htm> (6 May 2000).
- Shelton, Joanna R. "The Importance of Corporate Governance in OECD and Non-OECD Economies. The Draft OECD Principles." Speech delivered at the Corporate Governance in Asia: A Comparative Perspective Conference, 3 March 1999, Online, Available HTTP: <http://www.oecd.org> (2 September 1999).
- "Table IV: Value of Arms Transfer Deliveries and Agreements, 1987-1997 By Major Supplier and Recipient Region." *World Military Expenditures and Arms Transfers 1998*. Bureau of Arms Control, U.S. Department of State. Online, Available HTTP: http://www.state.gov/www/global/arms/bureau_ac/wmeat98/w98tbl4.pdf (7 May 2000).
- "Thomson-CSF Takes Full Ownership of Pilkington Optronics." *Defence Systems Daily*, 12 May 2000, Online, Available HTTP: <http://defence-data.com/current/page7186.htm> (12 May 2000).

"A Treaty Giving Legal Status to OCCAR, the European Weapons Procurement Agency." *Aviation Week and Space Technology*, 14 September 1998, 23, Online, Available: LEXIS-NEXIS Academic Universe (5 April 1999).

"20. Conference of National Armaments Directors (CNAD)." *NATO Handbook*. Online, Available HTTP: <http://www.nato.int/docu/handbook/1998/v029.htm> (28 October 1999).

Tusa, Francis. "EADS/Alenia Tie-up . . . Best of Spouses?" Online, Available HTTP: <http://defence-data.com/current/page7113.htm> (8 May 2000).

United States. Department of Defense. Directorate for Information Operations and Reports. "100 Companies Receiving The Largest Dollar Volume Of Prime Contract Awards—Fiscal Year 1998." Online, Available HTTP: <http://web1.whs.osd.mil/peidhome/procstat/p01/fy1998/top100.htm> (30 November 1999).

United States. General Accounting Office. "Defense Acquisition: Rationale for Imposing Domestic Source Restrictions." July 1998, GAO/NSIAD-98-191. Online, Available HTTP: <http://www.gao.gov> (2 December 1999).

"US/UK Trade." Defence Export Services Organisation, UK Ministry of Defence, *Winning Defence Business in the United States*. CD-ROM, 10 April 2000.

Vlachos, Katia G. "Safeguarding European Competitiveness: Strategies for the Future European Arms Production and Procurement." Western European Union Institute. Occasional Paper 4. January 1998. Online, Available HTTP: <http://www.weu.int/institute/occasion/4vlachos.htm> (23 November 1999).

"Western European Armaments Group (WEAG)." Western European Union Website. Online, Available HTTP: <http://www.weu.int/weag/eng/info/weag.htm> (28 October 1999).

"Western European Armaments Group – Panel I: Research and Technology." Western European Union Website. Online, Available HTTP: <http://www.weu.int/weag/eng/info/panel2.htm> (28 October 1999).

"Western European Armaments Group – Panel II: Equipment Programmes." Western European Union Website. Online, Available HTTP: <http://www.weu.int/weag/eng/info/panel1.htm> (28 October 1999).

"Western European Armaments Group – Panel III: Procedures and Economic Matters." Western European Union Website. Online, Available HTTP: <http://www.weu.int/weag/eng/info/panel3.htm> (28 October 1999).

"Western European Armaments Organisation." Western European Union Website.
Online, Available HTTP: <http://www.weu.int/weao/home.htm> (27 March 1999).

Conferences, Government and Organization Documents

Abels, Michael. Partner at Oppenhoff & Rädler, "Who Decides the Reshaping of the European Defence Industry." Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

Andropoulos, Costas. Head of Unit, Directorate General Enterprise, European Commission, "EC Initiatives to Maintain Competitive European Defence Industries." Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

Bruce, Robert. Director, Armaments Cooperation Atlantic, Office of the Under Secretary of Defense Acquisition, Technology and Logistics, "U.S. Perspective of Relations with the European Union," Accompanying Paper. Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

Forecast International. Foreign Military Markets, NATO and Europe. "France (Market Overview)." March 2000.

Forecast International. Foreign Military Markets, NATO and Europe. "Germany (Analysis)." November 1999.

Galdi, Theodor W. *The European Defense Industry: Responses to Global Change and European Integration*. Congressional Research Service, 13 March 1992.

Godbold, Robert. Head of Corporate Support—OCCAR. "OCCAR." Accompanying Paper, Reshaping Business Strategies in the European Defence Industry Conference, 24-25 January 2000, The Park Lane Hotel, London.

Hanel, Dieter. Head of Marketing for MaK System Gesellschaft, "Reshaping European Land Systems." Reshaping Business Strategies in the European Defence Industry Conference, 24 January 2000, The Park Lane Hotel, London.

Harper, John K. U.S. General Accounting Office. "Corporate Governance and Performance During Consolidation of the United States and European Defense Industries." Presented Paper, January 1999.

"Letter of Intent—LoI." Briefing Slides. Directorate for Cooperation and Industrial Affairs, Délégation Générale pour l'Armement, February 2000.

- Luckey, John R. *Brief Summary Of The Buy American Act*. Congressional Research Service. The Library of Congress. Committee on Government Operations. House of Representatives, 101st Cong., 1st sess. Washington: GPO, 1990.
- McCarthy, Steve. Attaché Defence Supply, "The UK/US 'Declaration of Principles': Key Points."
- "OCCAR: An Organisation to Improve the Management of Programmes." Briefing Slides. Directorate for Cooperation and Industrial Affairs, Délégation Générale pour l'Armement, February 2000.
- United States. Defense Science Board. Office of the Under Secretary of Defense for Acquisition, Technology & Logistics, *Final Report of the Defense Science Board Task Force on Globalization and Security*. December 1999.
- United States Congress. Office of Technology Assessment. *Lessons in Restructuring Defense Industry: The French Experience—Background Paper*. OTA-BP-ISC-96 Washington, D.C.: U.S. Government Printing Office, June 1992.
- United States. Department of Commerce. *Questions and Answers for the Legislation and National Security Subcommittee*. Committee on Government Operations, House of Representatives, 101st Cong., 1st sess. Washington: GPO, 1990.

Interviews and E-Mail Messages

- Bruce, Robert. Director Armaments Cooperation Atlantic, Office of the Under Secretary of Defense Acquisition, Technology, and Logistics. Telephone Interview, 4 May 2000.
- Clark, Colin of *Defense News*, Personal Interview, 25 February 1999.
- Hellstern, Colonel Bernd. Deputy Commander, German Armed Forces Command, Reston, Virginia, Personal Interview, 16 May 2000.
- Lefort, Major Patrick (DGA). Assistant Defense Cooperation Attaché, Embassy of France, Washington, D.C., Personal Interview, 19 May 2000.
- McCarthy, Steve. Attaché Defence Supply, British Defence Staff, British Embassy, Washington, D.C., Personal Interview, 18 May 2000.
- Ryan, CAPT Paul. E-mail to the author, 4 March 1999.
- Ryan, CAPT Paul. E-mail to the author, 26 March 1999.

Scaruppe, Peter. Counselor, Defense Research and Engineering (Economics), Embassy of the Federal Republic of Germany, Washington, D.C., Personal Interview, 18 May 2000.

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center 2
 8725 John J. Kingman Road, Suite 0944
 Ft. Belvoir, VA 22060-6218

2. Dudley Knox Library 2
 Naval Postgraduate School
 411 Dyer Road
 Monterey, CA 93943-5101

3. Ensign Jeffrey R. McNichols 4
 133 Balmoral Drive
 Kettering, OH 45429

4. Colonel Tjarck G. Roessler 1
 National Security Affairs Department Office
 Code NS
 Naval Postgraduate School
 1411 Cunningham Road Room 319
 Monterey, CA 93943-5218

5. Professor Robert E. Looney 1
 National Security Affairs Department Office
 Code NS
 Naval Postgraduate School
 1411 Cunningham Road Room 319
 Monterey, CA 93943-5218

6. Mr. Robert Zoellick 1
 The German Marshall Fund
 11 Dupont Circle, N.W.
 Suite 750
 Washington, DC 20036

7. Colonel Bernd Hellstern 1
 Deputy Commander, Armed Forces Command US/CA
 11150 Sunrise Valley Drive
 Reston, VA 20191

8. Major Patrick Lefort..... 1
Assistant Defense Cooperation Attaché for Industrial Affairs
Embassy of France
4101 Reservoir Road, N.W.
Washington, D.C. 20007-2172
9. Mr. Peter Scaruppe..... 1
Counselor, Defense Research and Engineering (Economics)
Embassy of the Federal Republic of Germany
4645 Reservoir Road, N.W.
Washington, D.C. 20007
10. Mr. Steve McCarthy..... 1
Attaché Defence Supply
British Defence Staff
British Embassy
3100 Massachusetts Avenue, N.W.
Washington, D.C. 20008